

Twenty-eighth Annual Report

OF THE

Board of Trustees

OF THE

Ohio State University

TO THE

GOVERNOR OF OHIO,

FOR THE

Year Ending June 30, 1898.

BOARD OF TRUSTEES

1897-1898

	Term Expires
*JOSEPH H. OUTHWAITE	Columbus.....May 13, 1898
WM. I. CHAMBERLAIN.....	Hudson....." 1899
DAVID M. MASSIE	Chillicothe....." 1900
JOHN T. MACK	Sandusky" 1901
LUCIUS B. WING.....	Newark" 1902
THOMAS J. GODFREY	Celina....." 1903
J. McLAIN SMITH.....	Dayton....." 1904
PAUL JONES.....	Columbus." 1905

OFFICERS OF THE BOARD

JOHN T. MACK.....	President
WM. I. CHAMBERLAIN.....	Vice President
ALEXIS COPE.....	Secretary
FRED W. PRENTISS.....	Treasurer

COMMITTEES OF THE BOARD

EXECUTIVE	FARM	FINANCE
L. B. WING	WM. I. CHAMBERLAIN	D. M. MASSIE
T. J. GODFREY	L. B. WING	T. J. GODFREY
PAUL JONES	J. McLAIN SMITH	J. McLAIN SMITH

FACULTY AND COURSES OF STUDY

THOMAS J. GODFREY	WM. I. CHAMBERLAIN	JOHN T. MACK
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*Failed of confirmation February 15, 1898, and Paul Jones appointed his successor.

MEMBERS OF THE FACULTIES, AND OTHER INSTRUCTORS

1897-1898.

JAMES HULME CANFIELD,
President—University Grounds.

EDWARD ORTON,
Professor of Geology and State Geologist—100 Twentieth street.

WILLIAM HENRY SCOTT,
Professor of Philosophy—131 Fifteenth avenue.

SIDNEY AUGUSTUS NORTON,
Lecturer in General Chemistry—363 East Town street.

NATHANIEL WRIGHT LORD,
Professor of Mineralogy and Metallurgy, Director of the School of Mines, and Dean of the
College of Engineering—338 West Eighth avenue.

SAMUEL CARROLL DERBY,
Professor of Latin, and Dean of the College of Arts, Philosophy and Science—93 Fifteenth
avenue.

WILLIAM RANE LAZENBY,
Professor of Horticulture and Forestry—The Marion.

JOSIAH RENICK SMITH,
Professor of the Greek Language and Literature, and President pro tempore of the University
Faculty—239 East State street.

HENRY ADAM WEBER,
Professor of Agricultural Chemistry—1342 Forsythe avenue.

BENJAMIN FRANKLIN THOMAS,
Professor of Physics and State Sealer of Weights and Measures—University Grounds.

GEORGE WELLS KNIGHT,
Professor of History and Political Science, and of Constitutional Law and International Law—
University Grounds.

ROSSER DANIEL BOHANNAN,
Professor of Mathematics—Sixteenth and Indianola avenues.

(1) DAVID SIMONS KELLICOTT,
Professor of Zoology and Entomology—1332 Highland street.

C. NEWTON BROWN,
Professor of Civil Engineering—1343 Forsythe avenue.

ERNST AUGUST EGGERS,
Professor of Germanic Languages and Literatures—University Grounds.

ALBERT MARTIN BLEILE,
Professor of Anatomy and Physiology—218 King avenue.

WILLIAM ASHBROOK KELLERMAN,
Professor of Botany—175 Eleventh avenue.

THOMAS FORSYTH HUNT,
Professor of Agriculture, and Dean of the College of Agriculture and Domestic Science—
188 West Tenth avenue.

(1) Died April 13, 1898.

ANNUAL REPORT

(1) ARTHUR LYMAN WILLISTON,

Director of the Department of Industrial Arts—652 Franklin avenue.

GEORGE BEECHER KAUFFMAN,

Professor of Pharmacy, and Dean of the College of Pharmacy—University Grounds.

BENJAMIN LESTER BOWEN,

Professor of Romance Languages and Literatures—46 Jefferson avenue.

JOSEPH VILLIERS DENNEY,

Professor of Rhetoric and the English Language, and Secretary of the University Faculty—
The Marlon.

ALLEN CAMPBELL BARROWS,

Professor of English Literature—15th and Indianola avenues.

EDWARD ORTON, JR.,

Director of the Department of Clay-Working and Ceramics—The Normandie.

JOHN THOMAS MARTIN,

Professor of Military Science and Tactics—1194 Fair avenue.

ROBERT IRVING FULTON,

Professor of Elocution and Oratory—Delaware, Ohio.

WILLIAM FOREST HUNTER,

Dean of the College of Law; Professor of the Law of Sales, Bailments, Evidence, Wills, Construction of Contracts, Law of Corporations; Judge of Moot Courts—1032 Bryden Road;
18 Board of Trade.

DAVID FRANKLIN PUGH,

Professor of Equity Jurisprudence and Law of Real Property—1330 Highland street; Court House.

EMILUS OVIATT RANDALL,

Professor of Commercial Law—1025 Oak street; Supreme Court Room.

EDGAR BENTON KINKEAD,

Professor of the Law of Pleading and Practice, Torts, and of Criminal Law—Wyandotte avenue;
Board of Trade.

WILLIAM HERBERT PAGE,

Professor of Elementary Law—527 East Broad street; 27 Board of Trade.

WILLIAM THOMAS MAGRUDER,

Professor of Mechanical Engineering—329 W. 8th avenue.

JOHN PANCOAST GORDY,

Professor of Pedagogy—The Normandie.

WM. MCPHERSON, JR.,

Professor of General Chemistry—97 Hamilton avenue.

JOSEPH NELSON BRADFORD,

Associate Professor of Drawing—54 West Tenth avenue.

HENRY CURWIN LORD,

Director of the Emerson McMillen Observatory and Associate Professor of Astronomy—401 W.
6th avenue.

DAVID STUART WHITE,

Associate Professor of Veterinary Medicine, and Dean of the College of Veterinary Medicine—
West Fifth avenue.

FRANK ARNOLD RAY,

Associate Professor of Mine Engineering—The Marlon.

OLIVE BRANCH JONES,

Librarian—53 Eleventh avenue.

EMBURY ASBURY HITCHCOCK,

Associate Professor of Experimental Engineering—330 West Eighth avenue.

(1) Resigned to accept position at Pratt Institute, Brooklyn, N. Y.

FRANCIS CARY CALDWELL,

Associate Professor of Electrical Engineering—380 W. 8th avenue.

PERLA G. BOWMAN,

Associate Professor of Domestic Science—167 West Eleventh avenue.

CLARENCE P. LINHART,

Director of the Gymnasium—The Great Southern.

GEORGE WASHINGTON MCCOARD,

Assistant Professor of Mathematics—319 West Fifth avenue.

WILBUR HENRY SIEBERT,

Assistant Professor of History—1332 Highland Avenue.

CHARLES WALTER MESLOH,

Assistant Professor of German—University Grounds.

WILLIAM DAVID GIBBS,

Assistant Professor of Agriculture—Neil and Tenth avenues.

HERBERT JAMES NOYES,

Assistant Professor of Dairy Husbandry—Richland City, Wisconsin.

FREDERICK CONVERSE CLARK,

Assistant Professor of Economics and Sociology—15th and Indianola avenues.

JAMES ELLSWORTH BOYD,

Assistant Professor of Physics—25 Maynard avenue.

JOSEPH RUSSELL TAYLOR,

Assistant Professor of Rhetoric—56 King avenue.

CLAIR ALBERT DYE,

Assistant Professor of Pharmacy—169 King avenue.

(1) PAUL JONES,

Lecturer on Law of Contracts, 1194 Bryden Road; 20 Hayden Building.

JAMES HENRY COLLINS,

Lecturer on Federal Practice—57 Lexington avenue; Ruggery Building.

FAXON FRANKLIN DUANE ALBERY,

Professor of the Law of Insurance—37 Lexington avenue; 119½ S. High street.

JOHN A. SHAUCK,

Lecturer on Supreme Court Practice, Special cases, etc.—95 Winner avenue.

CHARLES LINCOLN ARNOLD,

Assistant in Mathematics—239 West Tenth avenue.

EDWARD M. VAN HARLINGEN,

Assistant in Anatomy and Physiology—1594 Neil avenue.

THOMAS EWING FRENCH,

Assistant in Drawing—435 E. Naughton street.

CHARLES WILLIAM WEICK,

Assistant in the Industrial Department and Foreman of the Carpenter and Pattern Shops—134 West Eighth avenue.

WILLIAM ABNER KNIGHT,

Assistant in the Industrial Department and Foreman of the Machine Shops—206 West Lane avenue.

HARRIET TOWNSHEND,

Assistant Librarian—33 West Eleventh avenue.

KARL DALE SWARTZEL,

Assistant in Mathematics—57 West Frambes avenue.

(1) Resigned upon being appointed trustee of the University.

ANNUAL REPORT

THOMAS KENYON LEWIS,
Assistant in Drawing—68 East Seventh avenue.

CHARLES A. BRUCE,
Assistant in French—234 West Tenth avenue.

JOHN ADAMS BOWNOCKER,
Assistant in Geology—Clark Place and High street.

JOHN H. SCHAFFNER,
Assistant in Botany—61 West Eleventh avenue.

FRANCIS LEROY LANDACRE,
Assistant in Zoology and Entomology—70 West Tenth avenue.

JAMES STEWART HINE,
Assistant in Entomology—117 King avenue.

WILLIAM FINLEY LAVERY,
Assistant in Veterinary Medicine—1700 Neil avenue.

MAUD DOROTHY JEFFREY,
Assistant Librarian—65 West Eleventh avenue.

GERTRUDE STOWELL KELLCOTT,
Assistant Librarian—1332 Highland street.

FRANK HAAS,
Assistant in Metallurgy and Mineralogy—233 Eleventh avenue.

(1) WILLIAM LLOYD EVANS,
First Assistant Director in the Department of Clay-Working and Ceramics—189 Jefferson avenue.

ARTHUR WINFRED HODGMAN,
Assistant in Greek and Latin—164 West Ninth avenue.

CHRISTOPHER ELIAS SHERMAN,
Assistant in Civil Engineering—244 Twentieth street.

CHARLES CONRAD SLEFFEL,
Assistant in Industrial Department and Foreman of the Forge Room—174 West First avenue.

ALBERT EARL VINSON,
Assistant in Agricultural Chemistry—Neil and Tenth avenues.

CHARLES WILLIAM FOULK,
Assistant in General Chemistry—41 Eleventh avenue.

WILLIAM LUCIUS GRAVES,
Assistant in Rhetoric—878 Dennison avenue.

CHARLES WILLIAM BURKETT,
Assistant in Agriculture—1556 Neil avenue.

(2) WARREN KING MOOREHEAD,
Curator of the Archæological Collection—1080 Madison avenue.

FREDERICK EDWARD KESTER,
Assistant in Physics—1473 Neil avenue.

CLYDE T. MORRIS,
Emerson McMillin Fellow, and Assistant in Astronomy.

C. B. HINE,
Assistant in Horticulture and Forestry.

CLARK WISSLER,
Assistant in Philosophy and Pedagogy—1355 N. High street.

(1) Resigned March 3, 1898, to accept position at Colorado Springs. Theo. L. Griffin elected his successor.

(2) September 10, 1897, at his own request granted indefinite leave of absence from November 1, 1897. W. C. Mills elected to position.

STELLA ELLIOTT,
Gymnasium Ass'tant—54 W. Tenth avenue.

ROBERT FISCHER,
Fellow and Laboratory Assistant in Chemistry—810 Franklin avenue.

(1) EDWARD F. WATSON,
Fellow and Laboratory Assistant in Chemistry—106 W. Ninth avenue.

J. R. SPURRIER,
Fellow and Laboratory Assistant in Electrical Engineering—224 W. Franklin avenue.

MELVIN DRESBACH,
Fellow in Anatomy and Physiology—236 W. Eighth avenue.

JOHN H. FOX,
Fellow in Industrial Arts—199 W. Eleventh avenue.

HARRY W. KUHN,
Fellow in Mathematics—221 W. Eleventh avenue.

HORACE JUDD,
Fellow in Mechanical Engineering—22 W. Woodruff.

JAMES GRANT BOYD,
Fellow in Veterinary Medicine—38 W. Woodruff.

C. B. FREDERICK,
Fellow in Veterinary Medicine—Veterinary Hospital.

JOHN F. CUNNINGHAM,
Fellow in Horticulture and Forestry—1462 Washington street.

EDWARD E. SOMERMEIER,
Student Assistant in Chemistry.

(1) Resigned December 17, 1897. F. O. Clements appointed his successor.

EXECUTIVE DEPARTMENT.

JAMES H. CANFIELD.....	President.
ALEXIS COPE.....	Secretary Board of Trustees.
W. C. MCCracken.....	Chief Engineer.
JEAN BLACKFORD.....	Executive Clerk.
EDITH D. COCKINS	Registrar.
MARY HOWELLS COPE.....	Clerk in Office of Board of Trustees.
E. E. HARROLD.....	Storekeeper Chemical Laboratories.
CHARLES LOWE	Assistant Engineer.
WILLIAM STANDLEY	First Fireman.
BENJAMIN LeBAY.....	Second Fireman.
W. R. BEATTIE.....	Gardener and Florist.
JAMES KELLY.....	Lawnkeeper.
HENRY MARTZ.....	Watchman.

JANITORS.

ARTHUR CHANTLER.....	University Hall.
WASHINGTON TOWNSELL	Orton Hall.
F. B. BREWER.....	Chemical Hall.
JOHN E. ADAMS.....	Hayes Hall.
JOHN CONRAD.....	Horticultural Hall and Verterinary Hospital.
J. B. PARKER.....	Botanical Hall.
EDWARD STALTER	Observatory.
G. A. FLICKENGER.....	Chapel.
M. N. COOK.....	Townshend Hall
WILLIAM WHITESTINE.....	Biological Building.
D. D. GEREN	Armory and Gymnasium.

STATE GEOLOGIST.

PROFESSOR EDWARD ORTON.

STATE SEALER OF WEIGHTS AND MEASURES.

THE PROFESSOR OF PHYSICS, *Ex-Officio*.

COLUMBUS, O., June 30, 1898.

His Excellency, HON. ASA S. BUSHNELL, Governor of Ohio:

DEAR SIR: I have the honor to transmit herewith the twenty-eighth annual report of the Board of Trustees, Ohio State University.

Very respectfully,

Your obedient servant,

ALEXIS COPE, Secretary.

Report of Board of Trustees.

OFFICE OF THE BOARD OF TRUSTEES,
OHIO STATE UNIVERSITY,
COLUMBUS, OHIO, June, 30, 1898.

HON. ASA S. BUSHNELL, Governor of Ohio:

SIR: In compliance with law, the Board of Trustees respectfully submits the twenty-eighth annual report of the Ohio State University, it being for the year ending June 30, 1898.

ACKNOWLEDGMENTS.

The University renews its acknowledgments to the Governor and General Assembly for the fostering care bestowed upon the institution and to the people of the state for their continued appreciation and support.

ENDOWMENT.

The part of the irreducible debt of the state which forms the endowment of the University was, at the date of the last annual report, June 30, 1897, \$549,370.24, upon which the annual interest was \$32,962.21.

Under the operations of the act of the General Assembly of March 14, 1889, entitled "An act to quiet title to unpatented lands in the Virginia Military District of Ohio," the following addition was made thereto: May 10, 1898, \$48.03.

There was also added thereto under the act of May 21, 1894, entitled "An act to amend section one of an act entitled 'An act for the relief of certain persons who formerly held land in the Virginia Military District of Ohio, passed April 21, 1893,'" and the act of April 26, 1898, entitled "An act making appropriations for the relief of certain persons who formerly held lands in the Virginia Military District of Ohio," the sum of \$1,051.00, making the endowment fund June 30, 1898, \$550,469.27, on which the annual interest is \$33,028.15.

RECEIPTS AND DISBURSEMENTS.

The receipts from all sources and the disbursements for all purposes for the year ending June 30, 1898, have been as follows:

RECEIPTS.

Balance in treasury June 30, 1897.....	\$19,782 38	
Interest on endowment	32,973 11	
State levy	185,623 61	
Sale of refunding bonds	10,645 50	
Appropriation Act of Congress, 1890	23,000 00	
Students' fees.....	25,216 50	
Certificates of indebtedness.....	157,620 55	
Store-room cards.....	2,125 61	
Sales store-room supplies.....	588 66	
Rents	1,709 00	
Cash donations for Department Economics	850 00	
Emerson McMillin Fellowship in Astronomy	300 00	
Unclaimed drafts	857 52	
N. B. M. A. Scholarship.....	250 00	
Miscellaneous receipts.....	137 99	
Cash advanced by treasurer	495 36	
		<hr/> \$462,175 79

DISBURSEMENTS.

Salaries	\$137,572 42
Expenses of trustees	762 86
Repairs	7,793 24
Fuel and light.....	6,473 98
Library	3,620 98
Printing and advertising.....	2,222 41
Virginia Military Lands.....	194 30
Roads and grounds.....	1,617 60
Apparatus, machinery, etc.....	12,663 25
Laboratory supplies	5,067 28
Bonds and interest.....	27,176 46
Townshend Hall.....	76,771 52
Biological Building.....	46,218 39
Armory and Gymnasium.....	98,936 76
Equipment Townshend Hall	12,342 28
Equipment Armory and Gymnasium	5,663 91
Equipment Biological Building	6,467 43
Elevator.....	2,083 85
College of Law.....	2,384 44
Office rent.....	138 50
Furniture	281 40
Water	722 48
Postage.....	411 06
Telephone service.....	263 74
Rent fire alarm and signal boxes, etc	130 95
Commencement expenses.....	286 05
Telegrams.....	41 64
General supplies, cleaning material, etc.....	314 86

Freight and cartage.....	\$ 108 59	
Student assistance library.....	216 77	
Fitting up athletic field.....	322 19	
Guide and messenger service.....	340 94	
Lubricating oils	279 01	
Pipe machine.....	188 75	
Dedication Townshend Hall.....	365 17	
Stationery and blank books.....	145 12	
Expenses visiting educational meetings, high schools, etc..	146 55	
Agricultural students union	97 30	
Extra janitors.....	162 65	
Balance due architects Orton Hall	262 50	
Repaid on bond transaction	206 25	
Clerical assistance, agriculture.....	123 37	
Photographs, buildings.....	85 50	
Extra labor steam heating plant.....	52 88	
Miscellaneous expenses.....	448 21	
		<u>\$462,175 79</u>

NEW MORRILL FUND.

The following statement shows the receipts and expenditures for the year ending June 30, 1898, of appropriations made by act of Congress approved August 30, 1890, and known as the "New Morrill Fund," and which are included in the preceding statement of the aggregate receipts and disbursements:

RECEIPTS.

Balance in treasury June 30, 1897.....	\$853 94	
Appropriation year ending June 30, 1898	23,000 00	
		<u>\$23,853 94</u>

DISBURSEMENTS.

For instruction and facilities in agriculture	\$7,622 03	
For instruction and facilities in mechanic arts	6,828 23	
For instruction and facilities in English language	693 40	
For instruction and facilities in natural science	7,148 50	
For instruction and facilities in mathematical science.....	847 76	
For instruction and facilities in economic science.....	446 60	
		<u>23,586 52</u>
Balance June 30, 1898		<u>\$267 42</u>

The law of Congress requires a detailed annual report of the receipts and disbursements of this fund, which report for the year ending June 30, 1898, is appended to the treasurer's report filed herewith.

VIRGINIA MILITARY LANDS.

Up to June 30, 1898, the total receipts from the sale of Virginia Military Lands granted to the University by act of the general assembly of March 26, 1872, were.....		\$65,168 66
The expenses incidental to the survey and disposition of such lands to June 30, 1898, were.....	\$22,765 80	
Such expenses for year ending June 30, 1898, were.....	194 30	
		<u>22,960 10</u>

Leaving net cash receipts from this source.....	\$42,208 56
Of this sum there has been paid to the credit of the endowment fund.....	\$13,665 14
And expended for building and maintaining residences for professors under act of April 17, 1882.....	20,052 51
	<hr/> 33,717 65
Leaving balance June 30, 1898.....	\$8,490 91
Said receipts and disbursements for year ending June 30, 1898, are also included in the preceding general account of the aggregate receipts and disbursements.	
Up to June 30, 1897, the additions to the endowment fund under the operations of the act of the general assembly of March 14, 1889, entitled "An act to quiet title to unpatented lands in the Virginia Military District of Ohio," the act of April 21, 1893, entitled "An act for the relief of certain persons who formerly held lands in the Virginia Military District of Ohio" and an act amendatory of said last mentioned act passed May 21, 1894, there was added to said endowment fund the sum of.....	\$11,528 80
During the year ending June 30, 1898, under the operations of said first mentioned acts, there was added to said endowment fund the sum of.....	\$48 03
And under the operations of said last mentioned amendatory act and an act passed April 26, 1898, entitled "An act making appropriations for the relief of certain persons who formerly held lands in the Virginia Military District of Ohio," the further sum of.....	1,051 00
	<hr/> 1,099 03
Making total additions to the endowment fund under these acts.....	\$12,627 83

The suits mentioned in former reports growing out of a contract made with the late Mr. Sam Kendrick, for the discovery of undiscovered lands in the Virginia Military District of Ohio are still undisposed of.

One of them, the case of N. W. Evans against the Board of Trustees was tried in January, 1898, and has not yet been decided.

BONDED INDEBTEDNESS.

The bonded indebtedness of the University June 30, 1897, was \$230,000.

In the last annual report mention was made of the fact that on June 29, 1897, notice was given of the sale of \$100,000 additional four and one half per cent. certificates of indebtedness to be issued under act of the general assembly passed April 17, 1896, entitled "An act to authorize the board of trustees of the Ohio State University to issue certificates of indebtedness for certain purposes therein named," and their sale August 4, 1897, at a premium of 4.310, which made them equivalent to a 3.41 bond.

When this sale was made it was hoped that the funds realized therefrom would, with those remaining from the former issue under said last mentioned act, complete and equip the buildings under contract.

Later in the season, as the buildings neared completion, it was found that a further issue would be necessary to complete and fully equip them, and an additional \$50,000 certificates authorized by said act were duly advertised and sold December 17, 1897, at a premium which made them equivalent to a 3.38 bond.

This made the outstanding indebtedness of the University \$380,000, of which \$80,000 bears interest at six per cent. and \$300,000 at four and one-half per cent. per annum, the total interest charge being \$18,300.

Under and by the terms of the several acts authorizing these issues said certificates of indebtedness became due and payable as follows:

\$10,000, June 1, 1898; \$25,000, Dec. 1, 1898; \$10,000, June 1, 1899; \$55,000, Dec. 1, 1899; \$10,000, June 1, 1900; \$55,000, Dec. 1, 1900; \$10,000, June 1, 1901; \$55,000, Dec. 1, 1901; \$10,000, June 1, 1902; \$55,000, Dec. 1, 1902; \$10,000, June 1, 1903; \$55,000, Dec. 1, 1903; \$10,000, June 1, 1904; \$10,000, June 1, 1905.

After the issues were all made further consideration of the scheme of payment led the trustees to doubt whether payments could be promptly met without curtailing the teaching force of the University and crippling its work. They therefore presented the matter to the general assembly and on the 23d day of April, 1898, an act was passed entitled "An act to authorize the board of trustees of the Ohio State University to refund and extend the time of payment of portions of the bonded indebtedness of said institution as the same becomes due." This act provides in substance that portions of the bonded indebtedness falling due each year may be refunded so as to make the amount payable each year only \$25,000. By this arrangement the period in which the indebtedness will be wholly paid is extended to 1912.

Under the refunding act above mentioned \$10,000 six per cent. certificates falling due June 1, 1898, were refunded by an issue of the same amount of four and one-half, per cent. bonds falling due December 1, 1904.

Said refunding bonds were duly advertised and were sold at a premium which reduced the annual interest thereon to about 3.31 per cent.

THE PAGE WILL.

After the decision by the Supreme Court mentioned in the last annual report, in the case involving the validity of the devise to the University in the will of the late Hon. Henry F. Page, his widow, Charlotte G. Page, sent a communication to the trustees expressing a desire to relinquish to the University any interest she might have in the lands mentioned in said devise, and afterwards duly executed and delivered to the trustees her quitclaim deed for any interest or claim she had or might have to said lands, which deed was duly recorded in the counties in which the lands lie.

Thereupon the trustees formally released to Mrs. Page during her life all claim of the University to one-half of the income of said lands from the date of her daughter Isabel's death, and also formally requested the executors of Henry F. Page to pay to Mrs. Page the sum of \$1,732-26, the amount found in their hands on final settlement of his estate, for the purpose of providing a monument for her deceased husband.

Mrs. Page died shortly after the execution and delivery of the instrument before mentioned, and by the terms of said will the title to the lands and the income thereof vested in the University.

Notwithstanding the decision of the Supreme Court above mentioned, the collateral kindred of Mr. Page still asserted a claim to the lands and a portion of the income thereof, and the trustees under the will filed a suit in the common pleas court of Pickaway county, setting up the conflicting claims of the parties in interest and asking the court's decision thereon, which suit is still pending.

In the meantime, one of the trustees under the will, by agreement of parties, has been appointed receiver and is managing the lands, collecting the rents and holding them until the determination of such suit.

THE NEW BUILDINGS.

In the last annual report mention was made of the abandonment of work on the new buildings by the contractors and of the steps taken by the trustees to complete the buildings in accordance with the statute in such cases made and provided. The work was continued during the year, and pressed vigorously to completion. The cost of each of the buildings has been largely in excess of the contract price, and for the amount of such excess the University has a legal claim against the contractors and their bondsmen. During the year the following sums have been expended on said buildings: Townshend Hall, \$76,771.62; Armory and Gymnasium, \$98,936.76; Biological Building, \$46,218.39.

The excellence of the material and workmanship of these buildings is in striking contrast with that of other buildings erected under the usual contract plan and suggests the question whether it would not be better to amend the public building law so as to avoid the ruinous competition which often results in the successful contractor being compelled to stint his work or suffer great pecuniary loss.

If the law could be amended so as to give the trustees full power to purchase the material and employ the labor necessary for the erection of public buildings, with due safeguards to the rights of employers and employed and against favoritism and fraud, the buildings would be better built and the interests of the state would be better subserved.

EQUIPMENT OF THE BUILDINGS.

All the new buildings have been equipped with the necessary furniture and lecture-room and laboratory apparatus and appliances, except the gymnasium. In the latter a running track and overhead apparatus are yet needed, but these have been provided for in next year's budget.

The cost of said equipment has been as follows: Townshend Hall, \$12,342.28; Biological Building, \$6,467.43; Armory and Gymnasium, \$5,663.91.

THE CAMPUS.

During the year just closed the sum of \$1,617.60 was expended in caring for the campus, and in grading about the new buildings.

No unusual improvements were undertaken, the funds being needed elsewhere.

Much remains to be done to carry out the plans of the landscape gardener and put the grounds in symmetrical shape. New walks and drives are needed and some grading will be necessary to make the approaches to the new buildings presentable.

The plans contemplate a botanical garden and arboretum, and it seems practicable to soon begin this work. It will take time, and considerable outlay, but the comparatively small sums which have been and will continue to be expended from year to year will soon make the University grounds among the most attractive in the state.

The trustees again express the hope that some public spirited citizen will provide the funds for an arched gateway at one of the entrances of the University grounds and in so doing build for himself an enduring monument.

THE COLLEGE OF LAW.

When the school of law was established in 1890 its only support was the fees of its students. In 1894, the legislature, unasked by the trustees, passed an act authorizing an appropriation from the State University levy of a sum not exceeding \$5,000 annually for its support and maintenance. The trustees interpreting such action by the legislature as a desire on its part that a sum additional to the fees of its students should be expended for its benefit, annually, until last year, appropriated the sum of \$1,500 in addition to the fees, which sum was expended towards meeting the salaries of teachers and lecturers. During the year just closed this appropriation was omitted, and the fees received from the students paid all the expenses of the college and left in the general treasury a surplus of \$700.

Since its organization the college has grown in popularity and usefulness. The excellent character of the instruction given is evidenced by the fact alluded to in the President's report that in the examinations

before the supreme court the average grade of our students was higher than that of any other institution.

The trustees renew the acknowledgments of the University to the members of the bar of the state who in the early days of the college gave their services as teachers and lecturers with little or no compensation, to Mr. Emerson McMillin who generously gave the sum of \$3,000 for the purchase of books for a law library, and to the late Hon. Henry C. Noble and Hon. L. J. Critchfield who added to this purchase their valuable private libraries.

THE W. J. BRYAN GIFT.

On the 6th day of April, 1898, the Hon. W. J. Bryan addressed a letter to the President of the University stating that he proposed "to give the University, if agreeable to the trustees, \$250, the same to be invested and the annual proceeds used as a prize for the best essay discussing the principles which underlie our form of government."

The trustees promptly signified their willingness to accept such gift and their appreciation thereof and Mr. Bryan sent a draft for the amount.

Under and in pursuance of section 4105-15 of the Revised Statutes of Ohio, on July 20, 1898, said sum was certified into the treasury and made a part of the irreducible debt of the state.

The interest thereon will be faithfully applied to the laudable purpose for which it is intended by the donor.

This gift and the manner in which the law provides for its investment should arrest the attention of those who wish to aid the University. Citizens of the state who may wish to endow professorships, fellowships or scholarships in the University may be assured of the absolute security and permanence of their investments. The law provides that unless otherwise directed by the donor, all moneys granted to the University shall be paid into the state treasury and added to the irreducible debt of the state upon which is paid interest at the rate of six per cent. per annum payable semi-annually. What better investment can be made of surplus wealth, than the endowment of fellowships or scholarships to be granted to the worthy, deserving and often needy young men and women who are seeking an education? and who can measure the influence of even a small sum so invested and wisely applied?

THE LIBRARY.

The expenditures for the library during the year just closed exclusive of salaries of the librarian and assistants have been \$3,620.98. A small portion of this sum was spent for ordinary supplies such as library cards, stationery, etc., but the bulk of it was expended for books, periodicals and binding.

The report of the librarian shows that the number of accessions during the year was 1653 and that the total number of books in the library June 30, 1898, was 23,339 and of pamphlets approximately 7,000. The trustees share the feeling of the librarian that the number is very small in comparison with the needs of the institution, but hope that the financial condition will soon permit larger appropriations for books.

A cheering and encouraging fact in connection with this important department was the organization, during the last year, of the University Library Association, made up of graduates, students, ex-students and others, with the avowed purpose of adding to the collection of books, maps, etc. Through the efforts of this association, 371 volumes have already been added to the library and it promises to be an important factor in strengthening this weak point in the University economy. The trustees take pleasure in acknowledging the obligation of the University to the members of this association for their very commendable and valuable efforts.

SIEBERT LIBRARY.

On June 13, 1898, Messrs. John Siebert, Louis Siebert and Wilbur H. Siebert, of Columbus, submitted to the trustees the following instrument:

PARIS, ILLINOIS, March 23, 1898.

I, William Siebert, do hereby give and donate to the Ohio State University located at the city of Columbus in the state of Ohio, my entire library (except such bequests as are hereinafter mentioned). Said library consists of historical, scientific, religious and other works of both the English and German languages and of pictures, plates and maps.

It is my will and this gift is made upon the fulfillment of that condition, that my said library be placed in a separate alcove in the library of the Ohio State University, and such alcove to be named and known as the "William Siebert Alcove," and said alcove to be kept in good order, and books within it to be kept intact and properly catalogued and labelled for use of the professors, students and scholars of the University.

I also direct that before the removal of my library to the University that my dear wife Emma S. Siebert be allowed to select not over fifteen volumes, and such other books and pictures as in the judgment of my brother and nephew (hereinafter named) may not injure the usefulness of said library.

I also desire that other members of my immediate family be permitted to select such mementoes as they may desire, but with the approval of my said brother and nephew, the homogeneity and usefulness of said library always to be kept in view.

I hereby appoint my nephew Wilbur H. Siebert and my brothers John Siebert and Louis Siebert, all of Columbus, Ohio, to carry out my wishes and also as made known to them in verbal communication.

(Signed) WILLIAM SIEBERT.

I, Emma S. Siebert, heartily approve of the above action of my dearly beloved husband and it will be my pleasure and duty to keep the library together and in good order as long as it will remain under my care.

(Signed) EMMA S. SIEBERT.

Witnesses to both signatures :
HATTIE McCORD.

The Messrs. Siebert who presented the instrument, in so doing stated that if the trustees should think it wise and proper to assure them of the establishment of a "William Siebert Alcove" in the University library in accordance with the proposed donation, a part of the collections therein described would become immediately available, and that the alcove would receive frequent additions of well selected books on European history from other members of the Siebert family.

The trustees promptly passed a resolution establishing the "William Siebert Alcove" and it is understood that a portion of the collection will be placed therein ready for use during the next academic year.

The Siebert Library is said to contain about 3,000 volumes, and taken in connection with the generous offer of the Messrs. Siebert to make frequent additions thereto of well selected books in European history, is one of the most valuable gifts the University has received. The trustees desire to make public acknowledgment to the donors for this most liberal and generous gift.

LIBRARY OF PROFESSOR D. S. KELLICOTT.

Professor David S. Kellicott a day or two before his death made a will in which he bequeathed his scientific library, about four hundred volumes, to the University to form the nucleus of a departmental library for the department of Zoology and Entomology, over which he has so long and so ably presided, thus testifying by one of the last acts of his life his devotion to science and to the institution he served so well. Words can but feebly express a proper appreciation of this generous bequest. The books have been received and placed in cases in said department.

DEGREES.

At the commencement in June, 1898, on the recommendation of the Faculty, the following degrees were conferred:

ADVANCED DEGREES.

MASTER OF ARTS.

Jesse Harliaman Coursault, B. A., Columbus; Alexander Milne, B. D., (Yale University), Columbus; George Washington Rightmire, B. Ph., Columbus; Frederick Lewis Turner, B. A., Columbus.

MASTER OF SCIENCE.

Edward Lawrence Fullmer, B. Sc., Defiance; Lumina Cotton Riddle, B. Sc., Columbus.

MASTER OF SCIENCE (In Agriculture).

Charles William Burkett, B. Sc. (Agr.), Columbus; Ernest Jacob Riggs, B. Sc. (H. and F.), Angola.

MASTER IN PHARMACY.

William Lisle Stump, G. Ph., Nashport.

FIRST DEGREES.

COLLEGE OF AGRICULTURE AND DOMESTIC SCIENCE.

BACHELOR OF SCIENCE (In Agriculture).

John Carr Britton, Columbus; George A. Flickinger, York; Carl James Miller, Franklin; Albert Warren Nettleton, Medina; Chalmers Kirk McClelland, Andover.

BACHELOR OF SCIENCE (In Horticulture and Forestry).

William C. Mills, Mt. Vernon; Clarence William Waid, Emery.

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE.

BACHELOR OF ARTS.

Gay Bancroft, Columbus; William Hartwell Butterworth, Columbus; Ruth Lanissa Ford, Ashtabula; Levi Leedy Garber, Belleville; Ivy Kellerman, Columbus; Harriet Rebecca Kirby, Columbus; Walter B. Lyndenberg, Dayton; Caroline Lynas, Columbus; Charles Edmund Lynas, Columbus; Leonard Roland Martell, Columbus; Blanche Moss, Columbus; John Bernard Parker, Danville; Anna Dickson Prall, Columbus; Mabel Elise Rice, Columbus; Wallace Bates Shield, Kansas City, Mo.; Ella Underwood, Columbus; Mary Grace Vance, Columbus; Julius Franklin Vornholt, New Bremen.

BACHELOR OF PHILOSOPHY (Latin Course).

Helen M. Barlow, Columbus; Mary Elizabeth Bodman, Bement, Ill.; Harley Brelsford, Christiansburg; Ida Louise Feiel, Columbus; William Erskine Kellicott, Columbus; Donald Alexis Kohr, Westerville; Herbert Zettler Krumm, Columbus; Blanche Dell Mickey, Columbus; Mary Glisson Redick, Findlay; Margaret Sutherland, Columbus.

BACHELOR OF PHILOSOPHY (Modern Language Course).

Berthold August Eisenlohr, Columbus; Florence Danford Harvey, Mt. Perry; Edith Selma Herms, Portsmouth.

BACHELOR OF PHILOSOPHY (English Course).

Orsamus Drake Beardsley, Garrettsville; George Craig Dietrich, Piketon; Frank Carleton Doan, Columbus; Stanley Hamer Ford, Columbus; Charles Haywood Fullerton, Wheelersburg; Genevieve Gray, Columbus; William H. Hartsough, Jr., Columbus; Bird Hazelton, New Straitsville; Quintin R. Lane, Canal Winchester; Zella Vina Robinson, Columbus; Carey Lucas Shuck, Vanlue; Olive L. Shurtz, Columbus; John E. Sylvester, Jr., Wellston; Herbert Swan Talbot, Columbus.

BACHELOR OF SCIENCE.

Robert Fischer, Columbus; John Conrad Fitterer, Butler; Charles Edmund Haigler, Jeffersonville; Herbert Bailey Harrop, Columbus; Edwin George Hastings, Austinburg; Theodore S. Munson, Zanesville; Raymond Carroll Osburn, Columbus; Edward Bruce Williamson, Bluffton, Ind.; John Homer Pumphrey, Clayton; Samuel Eugene Rasor, Clayton.

ANNUAL REPORT

COLLEGE OF ENGINEERING.

CIVIL ENGINEER.

Charles London Barnaby, Columbus; Harry Holbrooke Barrows, Columbus; John Wesley Groves, Batavia; Albert Joseph Wise, Suffield; Benjamin Harrison Flynn, Columbus; Adelbert Andrew Henderson, Olentangy; Harry Marshall Urban, Ashland; Clyde Tucker Morris, Columbus.

MECHANICAL ENGINEER (In Electrical Engineering).

Walter Evans Chappell, Barnesville; Emery Eugene Graham, Richwood; Fred. Alan Fish, Milan; Frank Leslie Estep, Jeffersonville; Strafford Reaves Hewitt, Columbus; John Merton Hipple, Jefferson; Arthur James Jones, Fitz Henry, Pa.; Guy Carlton Fergus, Tadmor; Louis Ralph Krumm, Columbus; Alfred Heber McIntire, Mt. Vernon.

MECHANICAL ENGINEER.

Edwin Ebert Arnold, Zanesville; Charles Artemis Grate, Yale; Frederick James Hale, Mogadore; Carl Marble Ruhlen, Fort Riley, Kas.; Arthur Edward Knecht, Cincinnati.

ENGINEER OF MINES.

Stanton Sholes Freeman, Columbus; Cyrus Swan Roberts, Columbus.

BACHELOR OF SCIENCE (In Industrial Arts).

Charles William Weick, Columbus.

COLLEGE OF LAW.

BACHELOR OF LAWS.

John Ezra Baker, A. B., St. Paris; James Burt Baker, Ph. M. (Mt. Hope College), Salem; Harrison William Bock, Canton; Sherman Delivan Callender, Ph. B. (Oberlin College), Harts Grove; Jesse Peck Dice, Akron; Jessie Albertus Fenner, A. B. (Wittenberg College), Shiloh; Israel Moore Foster, Athens; William Augustus Garst, A. B. (Otterbein University, Harvard University), Westerville; Benjamin Lincoln Griffiths, Vaughnsville; William Preston Heacock, Cardington; Clark Samuel Hovey, B. A. (Buchtel College), Akron; Charles Schwenker Martin Krumm, B. Ph., Columbus; John Cooper Loomis, Tiffin; Charles Wesley Merrill, A. B. (Denison University), Granville; Clarence Coulter Middleswart, A. B. (Marietta College), Constitution; Bert La Forrest Mull, Columbus; Rufus Harry Patchin; Chardon; Charles Foster Pryor, Barnesville; Frederick Nicholas Sinks, Ph. B. (Yale University), Columbus; Edward Trevitt Smith, Holden, Mo.; William Edgar Sykes, Marietta; McAllister Wilcox, Sunbury.

COLLEGE OF PHARMACY.

GRADUATE IN PHARMACY.

Larone Allen Bunnell, Waynesville; William Bartlett Calkins, Columbus; Clement Jay Logsdon, Columbus; William Moss, Buffalo; Clarence Elmer Smith, Massillon; Edward Everett Somermeir, Columbus; Frances Henry Obetz, Columbus. (As of the Class of 1896.)

THE FACULTY.

The changes in the faculty since the last annual report are noted in the report of the President.

We join in the tribute paid by the President to the memory of the late Professor David S. Kellicott whose untimely death during the year is so sincerely deplored. In his death the University has lost one of its most able and inspiring teachers, and his associates a most lovable and valued friend. His quiet, earnest, unselfish devotion to the cause of science was an inspiration to all who come within the sphere of his influence. The lives and characters of such men are a part of the priceless endowment of the University which no change of time, place, or circumstance can wholly destroy.

Another notable loss in the faculty is that of Professor A. L. Williston, Director of the Department of Industrial Arts, who has been called to the famous Pratt Institute, Brooklyn, New York, at a much larger salary than the trustees of the University are authorized to pay.

Professor Herbert Osborn of the Agricultural College at Ames, Iowa, has been elected to succeed Professor Kellicott, and Professor Frank E. Sanborn, late of Tuft's College, Mass., to succeed Professor Williston.

The number of professors in the academic faculty is 30; associate professors 5; assistant professors 12; lecturers 1; assistants 23; fellows and laboratory assistants 12; librarian 1, assistant librarians, 3 curators 1,

Their positions and compensation and that of the other employes are stated elsewhere in the report.

The law faculty consists of the Dean, four professors and three lecturers, whose compensation is also given in another part of this report.

NUMBER OF STUDENTS.

The enrollment of students during the year was as follows:

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE.

First semester, 381. Second semester, 358.

OTHER COLLEGES.

Fall Term, 596. Winter Term, 586. Spring Term, 487.

The whole number in attendance during the year as shown by the catalogue including those in attendance at the summer school and those who attended the pedagogical conference held at the University in the summer of 1897 was 1150.

The numbers in the several departments and classes and the courses of study pursued in each are shown in the appendix to the report of the President, and the catalogue, which are made a part of this report.

GIFTS DURING THE YEAR.

Besides those specially mentioned in the preceding pages of this report, the University has received by gift the following additions to its museums and collections.

DEPARTMENT OF AGRICULTURAL CHEMISTRY.

Twelve bottles of coal tar colors used in coloring food, by Dr. F. B. McNeal value \$6.00.

Eighteen glass jars of fertilizers by Armour & Co.; value \$18.00.

Four bottles with preparations of pepsin and pancreatic; value \$20.00.

One set Dutch standards for sugar, by Dr. Ed. Sherer, New York; value \$20.00.

Eighteen samples raw sugar, by Dr. Ed. Sherer, New York; value \$1.00.

Two samples Holland sugar, by Dr. Sherer.

One box phosphate rocks, by M. A. Scovell, Lexington, Ky.

ASTRONOMY.

Two glass photographs of the solar eclipse of Jan. 21, 1898, from Lick Observatory.

One incomplete set of duplications of the Dorpat Observatory, Dorpat, Russia.

Current numbers of the Harvard Annals, from Harvard College Observatory.

One stellar tellurian, from Mr. C. S. Powell, Cleveland, O.

BOTANICAL DEPARTMENT.

W. H. Aiken, College Hill, Cincinnati, 10 botanical specimens.

G. D. Lind, Lebanon, 15 botanical specimens.

A. Wetzstein, St. Mary's, 50 botanical specimens.

F. J. Tyler, Perry, 25 botanical specimens.

J. R. Watson, Berea, 170 botanical specimens.

E. L. Fullmer, Defiance, 50 botanical specimens.

F. L. Stevens, Columbus, 25 botanical specimens.

Ruth E. Brockett, Rio Grande, 24 botanical specimens.

E. S. Meany, Seattle, Washington, seeds of 32 plants.

Arnold Arboretum, seeds of 13 plants.

Royal Botanical Garden, Edinburg, seeds of 25 plants.

Michigan Agricultural College (per Professor Beal), seeds of 52 plants.

Michigan Agricultural College (per Professor Beal), 48 living plants, grasses.

ELECTRICAL DEPARTMENT.

One Milde Transmitter, from Standard Telephone Co., Madison, Wis.

One collection of armature stampings, C. F. Scott.

ECONOMICS AND SOCIOLOGY.

Fellowship in Economics, \$250 per year for three years, by Emerson McMillin value \$750.00.

Pledge for periodicals, etc., Emerson McMillin, \$250.

GEOLOGY.

Bedford Stone Co.

J. A. Bownocker.

Mrs. Jos. Bradford.

J. E. Clum.

Geo. Cole.

Craig Stone Co.

W. M. Donnelly.

Evans Marble Co.

Rev. Dr. Frazee.

J. J. Janney.

Elisha L. Lambert.

Hon. H. L. Chapman.

Clarence Loveberry.

Dr. R. W. McFarland.

Hon. H. C. Miller.

W. C. Mills.

Prof. G. W. Mesloh.

Prof. S. B. Newberry.

W. K. Moorehead.

Ohio Arch. & Hist. Society.

Prof. E. Orton, Jr.

Sam'l T. Orton.

Taylor & Beall Co.

D. C. Thomas.

F. J. Tyler.

U. S. National Museum.

Mrs. C. C. Waite.

E. B. Willard.

These donations have varied widely in value. They consist of minerals, rocks and fossils. In many cases there is no such thing as market value. Their value may be roughly estimated at \$250.00.

MECHANICAL ENGINEERING.

Lane sectional pressure gauge and sectional pop safety valve, from Ashton Valve Co., Boston.

No. 5 hydraulic ram, from Humphries Mfg. Co., Salem, Ohio.

Two-foot water turbine, James W. See, Hamilton, Ohio.

A balanced valve specially made for the Buffalo Forge Co.'s engine, from American Balance Valve Co.

Para pneumatic pulley, Geo. V. Cresson Co., Philadelphia.

An American pulley, American Pulley Co., Philadelphia.

Large and small models of the Gilbert woodsplit pulley, Saginaw Mfg. Co., Saginaw, Mich.

Steel balls and hardened steel plates from Cleveland Machine Screw Co., Cleveland, Ohio, and from Pope Mfg. Co., Hartford, Conn.

Steel balls for a thesis investigation, from Fitchburg Steel Ball Co., Fitchburg, Mass., and from Simons Rolling Machine Co., Fitchburg, Mass.

Samples of material from Gandy Belting Co., Baltimore; Chesapeake Belting Co., Baltimore; Chicago Rawhide Mfg. Co., Chicago; Main Belting Co., Philadelphia; N. Y. Belting & Packing Co., New York. Photographs and blue prints have been received from Clonbrock Steam Boiler Co., Brooklyn, N. Y.; Niles Tool Works, Hamilton, Ohio; Lodge and Shipley Machine Tool Co., Cincinnati; Ball Engine Co., Erie, Pa.; Pond Machine Tool Co., Plainfield, N. J.; Fitchburg Machine Co., Fitchburg, Conn., and from other friends of the department.

PHARMACY.

One set of botanic drugs, Kauffman-Lattimer Co., Columbus; value \$25.00.

ZOOLOGY AND ENTOMOLOGY.

Entomological works from library of late Dr. D. S. Kellicott, from Mrs. Kellicott, Columbus.

Hippopotamus, peccary, tapir and skull, Sells Bros. Menagerie, Columbus, Ohio.

Rattlesnake skin, Dr. R. L. Sweeney, Marion, Ohio.

Eggs of 10 species of birds, C. B. Morrey.

Eggs of 50 species of birds, J. S. Hine, Columbus.

Many specimens of eggs, crayfish and fishes, E. B. Williamson and R. C. Osborn.

Eggs, J. B. Parker.

Skulls and small mammals, E. E. Masterman.

Varieties of honey bees, Frank Benton, Washington, D. C.

Right humerus of mastodon, Dr. J. B. Schueller.

The following are the estimates for the year ending June 30, 1899 :

Salaries.....	\$141,155 00
Expenses of trustees.....	600 00
Fuel and light.....	7,000 00
Repairs.....	8,500 00
Printing and advertising.....	2,100 00
Library.....	7,577 21
Roads and grounds.....	3,500 00
Virginia military lands.....	1,000 00
Bonds and interest.....	43,300 00
Department supplies and apparatus.....	35,000 00
Incidentals	6,000 00
Total.....	<u>\$255,732 21</u>

which the anticipated income of the University will be ample to meet.

The report of the treasurer and the annual catalogue for the year ending June 30, 1898, are filed herewith and made a part of this report.

Respectfully submitted,

ALEXIS COPE, Secretary.

The President's Report

To the President and Members of the Board of Trustees:

GENTLEMEN: The year which closed with the last day of June has gone quickly because it has been a very full year, in every sense of the words. While there was much that disturbed us all, in the delay in finishing the new buildings; the occupation of Townshend Hall after the mid-winter holidays, brought great relief to departments no longer overcrowded—for the first time since their establishment: the opening of the Gymnasium and Armory gave new life to the work of the Cadet Battalion as well as to all University athletics: and the much later occupation of the Biological Building placed two departments in exceptionally ample and well-equipped quarters, and gave the Faculty and the Executive department rooms in convenience and comfort somewhat commensurate with the work in hand. The changes have also made it possible to grant more and much needed room to other departments, the results of which will more properly form a part of the next annual report.

In this connection it is not out of place to note that much of the expense of departmental work in this University, and much of the demand for more room, is due to the fact that we have thus far been exceptionally fortunate in being able to keep the number of students in each division of classes such as to secure the very best educational results. In this respect we are certainly far in advance of many State Universities of similar grade, and of nearly all other institutions which have an enrollment at all equal to our own. We rarely have more than thirty or thirty-five in a division, while many institutions undertake work with twice this number: and in some the number runs to a hundred and even more. The pedagogical unwisdom of this is too apparent to need comment. It is unfortunate that the general public does not know this more often than it does, and with a more intelligent appreciation of what such crowding means.

The relations existing between students and Faculty have again been very satisfactory, and the year closes with a record of practically no call for "discipline" in the usual sense of the word. Some few students have gone home before the close of the year because they did not appreciate what the state is doing for them, nor the exceptional opportunities

offered here: but there has been no lawlessness and no "outbreak" and no conduct that has caused serious or prolonged anxiety. The general tone of student life has been clean and wholesome and industrious: possibly the first two because of the last. This is only natural, and is one of the distinct advantages of connection with a large and growing institution, situated in a city of sufficient size to prevent the University and its people imagining that the world necessarily turns around themselves and their interests. The effect of the orderly, systematic and busy life of a large city is always wholesome to those who are open to wholesome influences: and the temptations that ordinarily affect the life and work of a student are distinctly less than in the smaller community. It is well to remember that a student is at the University not more to prepare for life than to begin life. The day has passed in which higher education may properly withdraw itself from the world, or from the people. It has come out of the cloister and the monastery, and has discarded cap and gown, and now stands in the mart and in the thickest of everyday life, and is in its shirtsleeves—ready for service. It is this that is so rapidly blotting out the line once clearly drawn between the student and the world: and it is because this line is so largely obliterated that there is no longer such a frightful fall from Commencement exercises to the after daily life. If the graduate is to be in the world (though not of the world) he cannot get in too soon nor keep too close a touch. Sound education puts an end to all exclusiveness and seclusiveness: and the Universities are doing more than any other factor in American life to bring to the American people a sense of unity of interest and of general equality in right of way.

ATTENDANCE

The total attendance for the year has been eleven hundred and fifty. This is a gain of a shade more than twelve and one-half per cent, which is almost exactly the increase of last year. The greatest gain is in the College of Agriculture and Domestic Science—quite fifty per cent: and in the College of Law. The first is clearly due to the erection of Townsend Hall and to the establishment of the Course in Domestic Science—which is attracting favorable mention not only in Ohio but far outside of our borders. The latter is largely because of the increasing appreciation of the very high grade of work done in that College, and of the success of our students in passing the examinations of the Supreme Court. At the last of these examinations the results were as follows: This University presented 34 candidates, of which 1 failed: A, 15 candidates, 1 failed: B, 13 candidates, 1 failed: C, 41 candidates, 13 failed: D, 18 candidates, 15 failed. It would be scarcely courteous to designate more specifically the less fortunate schools.

The number of young women enrolled during the year just closed has been two hundred and thirty-five, as against one hundred and

seventy-two in the year previous. This is peculiarly gratifying, and should bring encouragement to all interested in sound training for those who have such influence in the future of this state and this country. It has been thought that even this number would be greatly increased if the University would open a special dormitory for young women: but our way to this is not clear as yet—though it may become not only desirable but necessary. Meanwhile we ought to encourage the establishment near the campus of cottages devoted exclusively to student life. These can be made paying business enterprises, with the right persons in charge: and offer no small inducement to the investment of local and other capital. A block of such cottages, or a large modern compartment house, would bring sure and steady returns.

EFFECT OF THE WAR

The attendance always falls off in the spring, without waiting for the close of the University year: because of the home demands upon many of our students, or because of financial inability to complete the year. This year the gap made in our ranks was wider than usual because of the large number which responded to the call of their country and their state, enlisting for the war with Spain. While we regretted to have them leave, and while we felt almost the anxiety of parents as these dear boys went to the front, we could but feel that it was proper that this ready and hearty and generous response should be made by the graduates and students of an institution which is endowed and largely supported by the general government: in which for years, at the expense of the general government, young men have received special and efficient instruction in military science. It has been impossible to secure a full roster of those whose names are thus honorably connected with this great national movement in behalf of humanity and advancing civilization: but we know that the number is very large. It is estimated that in the Fourth Ohio alone, there are nearly two hundred graduates and ex-students. In Battery H, of one hundred and five men, we can claim thirty-five. All over the state, the men who have been within these walls responded with alacrity, and furnished some of the most intelligent and efficient soldiers that the state has ever known. Their usefulness has been recognized by the commissions issued to a large number who have no other claim than their personal merit. The University rejoices in the men who thus honor their Alma Mater in honoring the nation, the state and themselves. May they be safely returned to the equally useful and equally honorable duties of that which in this country is falsely called private life—for there can be no private life in a free republic: every man is born an officer of the state, and is responsible for law and order and peace and prosperity for all, through all.

SUCCESS OF NEW COURSES

It is hardly necessary to say that that to which the University gives its attention is successful: but it is entirely proper to speak of some work that is new with us, and of some that is entirely novel in the educational world. The latter includes the new Course in Domestic Science, an entire experiment as we have undertaken the work. That some of our own Faculty should even look upon this somewhat askance is not at all surprising: and that to many who knew of our purpose by hearsay only, it should seem unworthy of University recognition, is not good ground for complaint. But the year has completely demonstrated the wisdom of the undertaking, and of the methods employed. The dignity of the work, the soundness of the methods, the breadth and strength of treatment, the culture value as well as the practical value, the ease with which interest in all this can be excited and held, and the almost immediate confidence of the community at large—all this is a source of congratulation to all who have had this work in hand. If the present outlook is at all realized, the course will be overcrowded in the second year of its existence: in the face of the very clear understanding on the part of all that some of the hardest work in the University is done in this department. The Women's Clubs of the state are taking a great interest in all this: and the existence of this work, and the possibility of coming directly in touch with it, had much to do with the selection of Columbus as the place for the next annual meeting of the State Federation of these organizations. All this means that it will not be long before this Course will so develop that it will need a building of its own. It may not be too early for some generous citizen of Ohio to be thinking of this very practical benefaction.

The selection of a Director of Physical Training, and an Associate for this work with young women, has proved exceedingly wise action. Our students have entered upon these courses eagerly and intelligently. They have been more than willing to submit to wise counsel and to make haste slowly in all that pertains to their physical well-being. Careful physical examinations have been made of a very large number of students of both sexes, and though the work did not begin till the middle of the year the beneficial results of systematic and intelligent training were very visible at its close. Under the new rules of the Faculty, all who are to take part in any athletic event must first submit to a rigid physical examination. This has already turned from the heavier work in the field several who were not fit for this, and in place of this has given them prescription work under which they have gained daily and visibly in general physical condition. The Gymnasium and its workers are now the center of very intelligent University interest. There is no question that it was this renewed and more intelligent interest that made it possible for the students to secure the payment among themselves and from outsiders of nearly a thousand

dollars of old indebtedness, and to re-organize the Athletic Association upon a sound business basis.

It is possible that some may not clearly recognize the place and value of true sport and of the true sporting spirit in the life of the nation today. To such I commend most heartily an article in the July number of *Outing*, by Mr. Pierce Collier—one of the most sane and convincing statements that I have ever seen, on this somewhat vexed question. It is not without meaning and sense that Harvard—old and honored and conservative—should this year confer the honorary degree of master of arts upon the young Englishman who has done so much to further the interests of wholesome sport in this country. Nor is it unworthy of notice that England, the greatest sporting country in the world, far outruns those countries that seem to have forgotten that something intelligent and legitimate—even though somewhat artificial—must be found to take the place of the physical trials and training that are the natural experience of those deep in the early work of founding a great nation. Our mother country spends more than two hundred millions of dollars each year for sport, in addition to an even greater amount of fixed investment in the same direction; and our kinsmen across the sea are not apt to throw away their money on that which brings no adequate return. It should be noted that the greater part of this—practically all of it—is expended in connection with that sport which is clean and wholesome, and above all which is amateur sport in the best sense of the word. This is the true touchstone of all sport: it must combine training with diversion, and it must be honestly amateur. As Mr. Collier so wisely says in the last lines of his article: "Honest sport needs no apology: for professionalized sport there is no excuse."

A TEACHERS' COLLEGE

In its determination to wisely serve the state, and especially the educational needs of the state, the University established the department of Pedagogy. It has completely vindicated the wisdom of this action, if vindication were necessary. But this brings the University face to face with another and more vexing problem. The state of Ohio has no public normal colleges or schools—except those of three or four of its cities. The course in Pedagogy at the University cannot possibly take the place of sound and continuous normal training, with due opportunity for practice work, and is not intended to take this place. It is exceedingly beneficial and desirable and opportune: but it must not be thought a substitute for the work in preparation for teaching which nearly every commonwealth in the union now sees clearly must be provided by the state. So complete is the recognition of this that sixteen states have one such public institution: eight have two: four have three: three have four: two have five: one has six: one has nine: and one has eleven. The value of such training is apparent at a glance. The day

of the teacher without such preparation has almost gone. Something of this is true even of those who hereafter teach in Colleges and Universities. That any well instructed person can teach is no longer recognized as a fact. We know that there are deep and philosophic foundations underlying all true and lasting instruction. We are no longer willing to entrust our children to those who are without either successful experience or special training. The child has but one chance, and that must not be thrown away. That there is much truth in the old saying that a teacher must be born such, goes without saying: but more than this is needed for the highest success. We must have thorough special training, accompanied with practice work under constant and competent criticism. The public welfare demands this in the common schools. We of the University cannot be assured of a sufficient foundation upon which to build wisely or safely, unless this has been laid by the hand of one who is skilled in such craftsmanship. In a word, Ohio has reached the point when this work cannot be longer delayed.

Unless the next legislature provides ways and means for founding and maintaining at least one Normal College of high grade, it is time that the University—burdened as it is with work already attempted—begins to think of enlarging the department of Pedagogy into the seventh College of the University: the Teachers' College. This will not be a Normal School, in the usual sense of the words. It will include work of a much higher grade. But it is work which we must consider soon in any event—and which we must consider at once if the state does not act.

DEGREES CONFERRED.

The degrees conferred at the last Commencement were as follows: On men—Master of Arts, four: Master of Science, one: Master of Science in Agriculture, one: Master of Science in Horticulture and Forestry, one: Master of Pharmacy, one: Bachelor of Science in Agriculture, five: Bachelor of Science in Horticulture and Forestry, two: Bachelor of Arts, eight: Bachelor of Philosophy, fifteen: Bachelor of Science, ten: Civil Engineer, eight: Mechanical Engineer in Electrical Engineering, ten: Mechanical Engineer, five: Engineer of Mines, two: Bachelor of Science in Industrial Arts, one: Bachelor of Laws, twenty-two: Graduate in Pharmacy, seven. On women—Master of Science, one: Bachelor of Arts, ten: Bachelor of Philosophy, twelve. Total, one hundred and twenty-six.

By special action of the Faculty, all Seniors who were members of the National Guard at the time of the first call for volunteers, and who enlisted in the service of the general government under this call, were granted their diplomas as though completing their course and being present on Commencement Day. This generous and patriotic recognition of the patriotism of our students, deserves at least this word of appreciation and approval.

CHANGES IN THE FACULTY

Of the changes in the Faculty, that which is most constantly in mind and which is still most difficult to realize is the loss sustained by the death of Professor Kellicott. It seems impossible that we are not to see him again in his accustomed place, nor to hear his quiet words of counsel when these are needed. He was always considerate, always courteous, always helpful, always wise, in all University affairs. Though deep in his own department work, and none could show more complete devotion, he took thought for the interests and welfare of all: and with unusual unselfishness in matters that most nearly concern him, often gave way for that which he believed to be the betterment of the whole University. He always spoke plainly and decisively, but never bitterly: and if there was even one in the Faculty who by any stretch of the imagination could be called his enemy, the fact is not known. His modesty was as great as his ability, and his self-forgetfulness kept pace with his peculiar fitness for his work. He was not only a specialist of extended and approved reputation, but he was a true and successful teacher. He never forgot the outer world, and the outer world was the better because it had known him. When the tidings reached the campus that the long and heroic struggle which he had made for life had at last come to an end, each colleague and student who had known him felt a sense of personal loss that could scarcely have been deeper had we all been of one family.

It is no easy task to select one who is to follow such a man and to continue his work. The University is fortunate in securing Professor Herbert Osborn, of the State Agricultural College of Iowa; who comes to us with a national reputation as an Entomologist, and is especially strong in Economic Entomology—in addition to good equipment and experience in general Zoology.

Professor Williston, of the Department of Industrial Arts, resigned at the close of the year, to accept a more attractive position in Pratt Institute, Brooklyn. His successor is Professor Frank E. Sanborn, of Tufts College, Massachusetts: a classmate of Professor Williston at the Massachusetts Institute of Technology, and a successful instructor and organizer.

At last it has become possible to divide the work of the chair heretofore occupied by Professor Knight. The great and interesting interest in American History, and the rapidity with which that History is now being made, has been recognized by the establishment of a chair of American History and Political Science: which has been given to Professor Knight, who is remarkably equipped for this work. Indeed, it is his interest and success and marked ability in American History that has made the division not only possible but necessary. A new chair of Economics and Sociology has been created and assigned to Professor F.

C. Clark; action and recognition fully deserved. While Professor Knight remains temporarily in charge of European History, the advancement of Professor Siebert to the position of Associate Professor of European History and the creation of the Siebert Alcove in the University Library, through the generous bequest of Mr. William Siebert of Illinois—to be strengthened by the annual gifts of Mr. John Siebert of this city, give sufficient promise that the History of the Continent will in the near future occupy an independent position. When the chair of Economics and Sociology was established, Mr. Emerson McMillin increased the already great indebtedness of the University to his thoughtful generosity, by providing for a Fellowship in this department—for each of three years—two hundred and fifty dollars each year and has since contributed generously to the equipment of the department with a reference library.

The appointment of Hon. Paul Jones as a Trustee of the University was a wise recognition of a worthy man and of the graduates of the University; and has given great and general satisfaction. But this made necessary Mr. Jones' withdrawal from the Faculty of the College of Law. For the coming year his work has been entrusted to Professor Page of that Faculty.

We were sorry to lose from the same Faculty Hon. George K. Nash, who was compelled to withdraw because of the pressure of professional engagements.

Early in the winter Curator Moorehead, in charge of the Archaeological collections, was obliged by the condition of his health to go to the extreme west for the remainder of the year. The collections were in the care of Miss Lucy Allen till late in the spring, when Mr. W. C. Mills was appointed curator.

Mr. Bruce, who has taught with unusual success for several years in the department of Romance Languages, received leave of absence for a year—which he will spend abroad in further study. Meanwhile his place will be taken by Mr. Murray P. Brush, who comes to us with exceptional preparation for this work.

Mr. Evans, of the department of Ceramics, withdrew, about the middle of the year to accept a position in Colorado Springs. His place was filled by Mr. Theodore L. Griffin, whose long experience in this work enabled him to render good service till the close of the year.

Mr. Burkett, of the department of Agriculture, withdrew at the close of the year to accept an advanced position in the State Agricultural College of New Hampshire.

ASSISTANTS AND FELLOWS

There have been the usual changes in these minor positions; due chiefly to the desire of those holding such positions to complete their graduate work elsewhere, or because of their recognition by other insti-

tutions with calls to more important positions. This is entirely in accordance with the policy laid down by yourselves at the May meeting. The position which you then assumed was that under the present conditions it is not your policy nor your desire that the position of assistant or instructor in the University should be regarded as a permanent situation: that these places are and under present conditions ought to be somewhat in the nature of advanced Fellowships; that it is your policy and desire that they should be filled by young men of ability and high character, who propose to make teaching their life work, and seek opportunity for practice under competent supervision; that as these assistants attain experience in this work and ability to conduct a department, it is your policy, if they cannot be advanced here, that they should seek a wider sphere of usefulness and give place here to others seeking the requisite training.

This action should not be misunderstood. The University is anxious to recognize its own graduates, and favors them and expresses its confidence in them in all possible and proper ways. But the University cannot find positions for all who desire to continue in educational work: nor is it able to offer to all such that advancement in position and salary which the proper ambition and the proper recognition of true worth demand. It is very natural that a graduate desires to linger in the pleasant places which he knows so well, and it is just as natural for the University to give preference to those whom it has trained and in whom it has deep interest. But there ought to be sufficient promise of advancement to keep every man continually at his best effort: and this, of course, the University cannot offer to all. Many of the appointments here, therefore, must be regarded as exceptional opportunities for practice work under expert criticism: by means of which our graduates will find advancement—here certainly when opportunity may arise; but elsewhere more often, as a matter of course. There is natural regret when our educational children must turn from the old home—but there is a proper pride in their greater success elsewhere. This University has already sent out some of the most competent workers in the educational world.

A NEW PROFESSION

The law of demand and supply is at work in education as well as in business life. In fact the demands of the business world create the necessity for supplies of education to carry it on. *To-day as never before business has become one of the leading professions.* More and more young men and women go out from college halls into business pursuits. It is the duty, therefore, of the state to equip its young people for this profession as well as for law, for medicine or for engineering. In point of fact the latter professions depend for their success upon the former. All the varied interests of the state unite in this demand. To meet it the University should offer courses so arranged and grouped as to thor-

oughly prepare those desiring to specialize along lines of Commerce and Administration.

The reasonableness of such work, the persistence of the demand on the part of the business men of this state, and the opportuneness of the times, render the establishment of a regular, four years' course in Commerce and Administration almost imperative. Within the past year the University of California has founded a department of Commerce; and more recently the University of Chicago has created a separate College of Commerce and Politics. Ohio cannot afford to lag behind in such a movement, in this industrial age. The business men of Columbus, members of the Board of Trade, have given a substantial proof of their interest, in the form of over one thousand dollars to equip the department of Economics for this kind of work. Reference has already been made to the Emerson McMillin fellowship, in the same direction. Students looking forward to a business course—banking, merchandising, insurance, accounting, statistical work, the consular or civil service, public or private administration, etc.—may obtain such a grasp of business principles and practice through the methods of instruction employed that they will not have to "unlearn" anything when they step out into active life. On the contrary, they will find themselves, like the college-trained engineer, better equipped even than those who have come all the way up through the ranks. It is our good fortune as a University to be located in the midst of a great industrial laboratory—as Columbus has been justly termed; and also in the midst of the greatest of the central-western manufacturing and commercial states. The University therefore should be as rich in educational opportunities and as far reaching in influence as we are in industrial resources. Our engineers are in Korea—why not our merchants and bankers in China; and our Ohio boys as Consuls in Cape Colony? The new era now dawning upon us as a nation is a commercial era. It makes the preparation of men and women for business careers at home and abroad, a matter of prime importance. Only by meeting the demand can the University prosper.

INVESTIGATION AND RESEARCH

It is to be confessed with regret that the members of our Faculty have very little time for original work. Until we can have practically two Faculties—one for instruction and one for investigation and research—we must give our time and strength almost entirely to instruction. But in spite of the demands made upon them in this direction, our instructors manage to find time—or to make time—for some outside work each year. During the year just closed the Faculty has been well represented in the current literature of the day—especially in the magazines devoted to science. Members have also taken active part in the work of local organizations. Some of the best work accomplished for and by the State Board of Health has been performed by University men. The expert

services of Dr. Orton, and of Professors Brown, N. W. Lord, Weber, McPherson, Thomas, Ray, Magruder, and others of the Faculty of the College of Engineering have been in constant demand.

The Faculty of the College of Agriculture has furnished lecturers for Institute work, under the general direction of the State Board of Agriculture: sending such men as Professors Hunt, Lazenby, Kellerman and Gibbs, Assistant Burkett and others. The Arts Faculty has been called upon for lectures before reading clubs and teachers' organizations: in which work especial recognition should be given to Professors Scott, Knight, Gordy, Denney, Eggers, Smith, Barrows and Clark. Dr. White, of the College of Veterinary Medicine, has done Institute work. Members of the Law Faculty, notably perhaps Professor Randall and Judge Pugh, have been in demand for public occasions.

Of more formal work it may be noticed that Professor Gordy completed the second volume of his "History of Political Parties in the United States:" Professor Bowen published a text book—"First Italian Readings:" Professor Knight wrote the text of the beautifully illustrated "History of Columbus" which appeared last winter: Professor Siebert completed his volume on the old "Underground Railway and its Promoters:" Professor Denney gave a course of twenty lectures before a class of Columbus teachers on "The Teaching of English in the Public Schools," and of four lectures before the Kindergarten Normal School of Columbus on "Interpretation of English Literature:" Professor Kellerman has been pursuing some special investigation in Sorghum Smut, and hopes to report favorable results soon: and Professor Edward Orton, Jr. has made some very valuable experiments with and for the National Association of Brick and Tile Manufacturers.

I beg leave to recommend that the special report made by Professor Gibbs on "Methods of Conducting Physical Examination of Soils", the briefer yet very valuable report of Professor Weber on "Sugar Beets in Ohio," and the statement of some of the results of the Gymnasium work by Miss Elliott, be incorporated in the report which you make to the Governor, and be printed. The report by Professor Gibbs should be illustrated with engravings from the photographs which he uses in his manuscript.

CONCLUSION

My thanks are again due the members of the Faculty and to yourselves, for the co-operation which has made the past year so successful. Nor do I forget the great mass of our students—loyal, industrious, earnest, faithful—whose constant desire to profit by the opportunities here offered has robbed administration of more than half its terrors.

Very respectfully,

JAMES H. CANFIELD.

Columbus, August 15, 1898.

TABLE I—THE WORK OF INSTRUCTORS, 1897-98

Subjects	Hours per week						Number of students		
	Lectures			Laboratory			First Term	Second Term	Third Term
	First Term	Second Term	Third Term	First Term	Second Term	Third Term			
AGRICULTURE									
Breeds of Live Stock (8)†	3			2			24		
Principles of Breeding (9).....		3			2			22	
Stock feeding and Hygiene (10).....			3			2			27
Farm Equipment (11).....	3			2			16		
Soils (12).....		3			2			23	
Farm Crops (13).....			3			2			24
Animal Mechanics and Exterior (14).....	3			2			14		
Butter Making and Cheese Making (15).....					8			14	
Rural Economics (16).....			4						15
Dairy Farming (5).....		2			2			26	
Butter Making and Cheese Making (6).....					16			30	
Butter Making and Cheese Making (7, 15).....		2						44	
Special					4	4		1	2
AGRICULTURAL CHEMISTRY									
Principles, Nomenclature, etc. (1).....	3			6			64		
Organic Chemistry (8).....		2			6			51	
Applications of Chemistry to Agriculture (9).....			2			13			46
Laboratory (4)		2		10	10	12	17	25	14
Chemistry of Milk and Milk-testing (7).....		2						24	
Thesis and Similar Work.....				10	2	2	1	2	1
Laboratory (6)					10	12		2	1
ANATOMY AND PHYSIOLOGY									
Human Anatomy and Physiology (1, 51, 52).....	6	6	6	8	5	3	69	71	67
General Physiology (2).....			3			1			6
Histology and Hist-Chemistry (56, 4).....	1	1		13	13	13	20	20	15
Physiological Laboratory (53, 54, 55).....	2	1	1	23	10	15	24	32	10
Bacteriology (6, 7, 61).....		2			2			67	
Microscopy (5).....			1			6			30
Thesis and Similar Work.....						2			1
ASTRONOMY									
Astronomy and Geodasy (2).....	4		4				9		13
General Astronomy (52).....			5						17
Mathematical Astronomy (54)			2			12			3
BOTANY									
Physiological Botany (6).....	3			8			55		
Medical Botany (4).....		2			8			20	
Medical Botany (56).....		2			22			24	
Systematic and Physiologic'l Botany (55).....	2	2		8	11		22	23	
Physiological Botany (53).....	2			7			3		
Physiological and Economic Botany (7).....		3			8			23	

†The figures in brackets are the department numbers—for which see Part II of this Report.

TABLE I—THE WORK OF INSTRUCTORS, 1897-98—Continued

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
BOTANY—Concluded									
Laboratory Work (57, 58).....				3	6	10	3	3	10
Elementary Botany (1).....			3			43			41
Economic Botany and Veg Pathology (8).....			3						19
Special and Advanced Work (59, 61, 62).....			2	19	3	5	3	1	4
Thesis and Similar Work.....				1	1	1	2	2	2
CLAY WORKING AND CERAMICS									
Lectures (4).....	5			6			5		
Analysis of Clays and Minerals (2).....		1			9			7	
Lectures (6).....			5						4
Quantitative Analysis of Simple Min'ls (18).....	2			22		10	8		1
Analysis of Glasses and Glazes (7).....					10			3	
Manufacture of Bricks (5).....		5			6			4	
"Rational" Analysis of Clays & Pottery (3).....						10			7
Thesis and Similar Work.....				20	25	25	1	1	1
CHEMISTRY									
Elementary (51, 52).....	2	3		4	5		42	38	
Elementary (7).....	4	6		38	44		120	110	
Qualitative Analysis (12).....			2			25			32
Qualitative Analysis (53, 54).....	1	1		11	11		11	3	
Quantitative Analysis (4).....	1	1	1	8	9	10	36	28	23
Organic (8, 9).....	5	1	1		4	6	7	6	8
Advanced Chemistry.....				6		2	6		4
Applied Chemistry.....		3						5	
Toxicology (11).....			4						9
Thesis and Similar Work.....					4	2		8	5
CIVIL ENGINEERING									
Land Surveying (1).....	10	1		20			26	5	
Topography (4).....					12			15	
Railroad Surveying (2).....			5			4			13
Topographical Surveying (3).....	1			6			10		
Working Drawings in Ry. Constr't'n (5).....					5			14	
Stereotomy (6).....		3			4			10	
Bridge Strains (7).....			5						9
Bridge Designing (8).....				10			9		
Civil Engineering Laboratory (14).....					8			9	
Sanitary Engineering (10).....			5						8
Masonry Construction (15).....	5						10		
Highways (16).....		5						10	
Water Supply (18).....		5						9	
Trusses (19).....			5						10
Roof Trusses (20).....				10			2		
Surveying (21).....			2			4			14
Thesis and Similar Work.....					8			8	6

TABLE I—THE WORK OF INSTRUCTORS, 1897-98—Continued

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
DOMESTIC SCIENCE									
Domestic Economy (1, 2, 3).....	1	1	1	6	6	6	5	8	8
DRAWING									
Freehand Drawing (1).....				20	12	12	129	87	35
Lettering (2).....						18			94
Mechanical Drawing (3).....	1	2	1	8	8	4	58	62	44
Draughting and Blue Printing (4).....					6			8	
Photography (7).....	1		1	4		8	14		32
Mechanical Drawing (8).....	1	1		4	2		6	3	
Mechanical Drawing (10).....	1			4			30		
Mechanical Drawing (11).....		1			8			3	
Clay Modeling (12).....						4			3
Technical and Decorative Design (13).....				4	4		11	4	
Pen Drawing (14).....				4			6		
Technical Drawing (5).....	1			6			28		
Orders of Architecture (1).....		1			8			4	
Styles of Architecture (2).....			1			8			2
Decoration and Ornament (5).....		1			4			2	
ELECTRICAL ENGINEERING									
Electrical Engineering (2).....	5	5	5				14	12	12
Electrical Designing (3).....				1	6	15	13	13	12
Electrical Laboratory (4).....				18	18	18	17	14	12
Electrical Engineering (5).....	2	2		4	8		24	20	
Special.....						6			2
*ELOCUTION AND ORATORY									
The Science of Expression (51) (52).....	4	4		1	1		90	85	
The Art of Expression (53, 54).....	2	2		1	2		15	12	
Shakespeare and the Drama (55) (56).....	2	*2		1	2		11	11	
*ENGLISH LITERATURE									
An Introduction to Eng. Literature (51) (52)	8	8					54	47	
The English Bible (55) (56).....	1	1					7	17	
Shakespeare (57).....	3						13		
The Drama (58).....		3						18	
The Novel (59).....	3						16		
From Dryden to Johnson (61).....	2						12		
Masterpieces (66).....		3						6	
Thesis Work.....				1	1		1	2	
The Drama since the Restoration (60).....		2						9	
American Literature (62).....		3						20	

*Semester work

TABLE I—THE WORK OF INSTRUCTORS, 1897-98—Continued

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
GEOLOGY									
Cosmical Geology (2) (51).....	5	5	.....	1	3	.....	49	26	.....
Paleontology (53) (54).....	.....	2	.....	6	.....	.....	7	5	.....
Petrography (56).....	.....	.....	.....	.....	3	.....	.....	9	.....
Physical Geography (1).....	.....	5	8	.....	.....	.....	.....	7	41
Economic Geology (3).....	.....	.....	5	.....	.....	.....	.....	.....	20
GERMAN LANGUAGE AND LITERATURE									
Elementary German (1) (51) (52).....	12	12	.....	.....	.....	.....	121	82	.....
Science Reading (2) (53) (54).....	4	10	.....	.....	.....	.....	33	21	.....
German Literature (55) (56).....	8	8	.....	.....	.....	.....	43	32	.....
The German Drama (57).....	3	.....	.....	.....	.....	.....	11	.....	.....
The German Prose (58).....	.....	3	.....	.....	.....	.....	.....	9	.....
Faust I—(59).....	2	.....	.....	.....	.....	.....	3	.....	.....
Faust II—(60).....	.....	2	.....	.....	.....	.....	.....	3	.....
Middle High German (61).....	2	.....	.....	.....	.....	.....	4	.....	.....
Medieval Epics (62).....	2	.....	.....	.....	.....	.....	3	.....	.....
Thesis.....	.....	.....	.....	2	2	.....	.....	.....	.....
*GREEK LANGUAGE AND LITERATURE									
Elementary Greek.....	5	5	.....	.....	.....	.....	13	8	.....
Xenophon's Memorabilia (51).....	4	.....	.....	.....	.....	.....	39	.....	.....
Herodotus (52).....	.....	4	.....	.....	.....	.....	.....	33	.....
Lysias (53).....	4	.....	.....	.....	.....	.....	4	.....	.....
Homer (54).....	.....	4	.....	.....	.....	.....	.....	4	.....
Thucydides (55).....	3	.....	.....	.....	.....	.....	8	.....	.....
Demosthenes (56).....	.....	3	.....	.....	.....	.....	.....	7	.....
Homer (57).....	3	.....	.....	.....	.....	.....	18	.....	.....
Attic Drama (58).....	.....	3	.....	.....	.....	.....	.....	17	.....
Ancient Art (59) (1) (60).....	2	2	.....	.....	.....	.....	20	15	.....
Graduate.....	1	.....	.....	.....	.....	.....	1	.....	.....
*HISTORY AND POLITICAL SCIENCE									
HISTORY									
General History of Europe to Close of Middle Ages (51).....	6	.....	.....	.....	.....	.....	69	.....	.....
From Close of Middle Ages to French Revolution (52).....	.....	6	.....	.....	.....	.....	.....	59	.....
Political & Constitutional History of England to the Accession of the Stuarts (53).....	3	.....	.....	.....	.....	.....	27	.....	.....
From Accession of Stuarts to Present Time (54).....	.....	3	.....	.....	.....	.....	.....	22	.....
Political and Constitutional History of United States (55) (5) (56).....	4	4	.....	.....	.....	.....	65	44	.....
History of Europe from 1789 to 1815 (57).....	3	.....	.....	.....	.....	.....	7	.....	.....

*Semester work

TABLE I—THE WORK OF INSTRUCTORS, 1897-98—Continued

Subjects	Hours per week						Number of students		
	Lectures			Laboratory			First Term	Second Term	Third Term
	First Term	Second Term	Third Term	First Term	Second Term	Third Term			
HISTORY AND POLITICAL SCIENCE—Concluded									
HISTORY—Concluded									
History of Europe since 1815 (58).....		3						7	
Roman History and Institutions (59).....	3						6		
Protestant Reformation (60).....		3						5	
Pro-Seminary (61) (62).....	2	2					9	9	
ECONOMICS									
Elements of Political Economy (51) (52)...	8	8					68	79	
The History of Industrial Society (53).....	3						13		
The History and Theory of Socialism (54).....		3						8	
Practical Problems in Economics (55).....	2						30		
Industrial and Social Reforms (56).....		2						27	
Transportation Problem (57).....	2						10		
Money and Banking (58).....		2						16	
POLITICAL SCIENCE									
International Law (51).....	2						8		
Municipal Government (52).....		2						11	
Political Institutions of the United States (53).....	3						16		
Comparative Political Institutions of Europe and America (54).....		3						17	
Thesis Work.....				3½	3½		15	11	
HORTICULTURE									
Elements of Horticulture (1).....	3		2	2		4	12		10
Pomology and Viticulture (5).....	2			3			6		
Vegetable Gardening and Seed Growing (6).....		3			2			8	
Small Fruit Culture (7).....			2			4			
Elements of Floriculture (8).....	2			1			5		
Commercial Floriculture (9).....		2			1			5	
Home Flower Gardening (10).....			1			2			5
Arboriculture (11).....	1			3			7		
Forestry (12).....		2			1			5	
Landscape Gardening (13).....			1			2			6
Thesis and Similar Work.....				4		2	1		2
INDUSTRIAL ARTS AND SHOPWORK									
INDUSTRIAL ARTS									
Designing (2).....				6	6	3	4	4	5
Shop Equipment (3).....	3	3				2	1	1	1
Advanced Designing (4).....						2			1
Workshop Appliances (5).....				3					5
SHOPWORK									
Carpentry and Pattern Making (1).....				12	12	16	38	42	29
Forging (2).....				15	12	15	26	32	19
Foundry Work (3).....				7	7	8	13	17	18
Chipping and Filing (4).....				6	6	6	17	24	11
Machine Work (5) (6).....				14	20	15	15	43	25
Thesis and Similar Work.....				6		3	2		

TABLE I—THE WORK OF INSTRUCTORS, 1897-98—Continued

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
*LATIN									
Cicero (51).....	8						65		
Livy, Horace (52)		8						54	
Horace (53).....	8						36		
Tacitus (54).....		8						31	
Lucretius (57)	3						4		
Elegiac Poets (58).....		3						4	
Pharmaceutical (1) (59) (60).....	5	5	5				22	20	19
Teachers' Course (6) (62).....	2	2					7	5	
Thesis and Similar Work									4
MATHEMATICS									
Elementary Algebra (1).....	5						20		
Elementary Algebra (2).....	5	5	5				9	10	9
Plane Geometry (3).....	5	5					14	25	
Solid Geometry (13)		10						24	
Plane Trigonometry (14)	20		10				102		29
Analytical & Spherical Trigonometry (15).....		10						106	
College Algebra (16).....		15						106	
Plane Analytics (17).....			25						85
Space Analytics (18)	20						69		
Differential Calculus (19)		20						59	
Integral Calculus (20)			20						53
Differential Equations (11)	1						22		
Least Squares (8).....	2						11		
*MATHEMATICS									
Plane Trigonometry and Plane Analytics (51) (53) ..	18						100		
Problems on all Past Work (65) (66).....	1	1					12	13	
Advanced Mathematics (63) (64).....	9	7					11	10	
Elementary Calculus and Theory of Equations (52) (54)		18						95	
MECHANICAL ENGINEERING									
Mechanism (3).....		5				4		23	5
Analytical Mechanics (6)	10	10					42	27	
Strength of Materials (7).....			10						35
Thermodynamics (8).....	5		5				27		27
Prime Movers (9).....	5						22		
Machinery and Millwork (10).....		5						19	
Experimental Laboratory (12, 13, 14, 15, 16, 17).....		1	1	12	13	15	13	16	17
Machine Design (18).....	5	5					9	7	

*Semester work—generally

TABLE 1—THE WORK OF INSTRUCTORS, 1897-98—Continued

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
MECHANICAL ENGINEERING—Concluded									
Materials of Construction (23).....	5						8		
Hydraulic Machinery (20).....			2						5
Timber and Masonry (22).....		5						7	
Machine Design (19).....	3					10	14		25
Experimental Eng'ring Laboratory (24)						4			1
Experimental Eng'ring Laboratory (25).....						6			8
Thesis Work and Graduate Work.....	3	4	2	34	12	30	10	10	9
Care of Boiler and Engine.....		2						36	
METALLURGY AND MINERALOGY									
Metallurgy (4).....	5	5					16	13	
Metallurgical Laboratory (5).....				21	10	20	15	15	16
Ore Dressing (8).....	2						4		
Assaying (6).....		1			20			13	
Mineral Chemistry (9).....			5						2
Mineralogy (2).....			6						47
Determinative Mineralogy (3).....						10			4
Thesis and Similar Work.....						2			3
Metallurgical Construction (7).....		1			3			2	
MILITARY SCIENCE AND TACTICS									
Military Drill.....				5	3	3	340	330	264
Tactics.....		2						35	
Art of War.....		2						17	
MINE ENGINEERING									
Mine Surveying (1).....	3			6			2		
Ventilation and Haulage (2).....		5			6			3	
Mine Engineering (5).....	5	5	5	2	2	1	2	2	2
Mine Operating (3).....			5			2			3
Mine Surveying (4).....	3			6			4		
Special Surveying.....			3			5			3
Thesis and Similar Work.....						4			2
*PEDAGOGY									
Elementary Educational Psychology (51) ..	4						5		
The Science and Art of Teaching (52).....		4						8	
History of Education (53).....	4						10		
The Herbartian Pedagogy (55).....	4						10		
The History of Education, U. S. (57).....	2						6		
Philosophy of Education (58).....		4						11	
The Herbartian Pedagogy (60).....		2						3	
Laurie's Institutes of Education (62).....		2						12	
Herbart's Science of Education (64).....		2						9	
Special.....	2	2					9	1	

*Semester work

TABLE I—THE WORK OF INSTRUCTORS, 1897-98—Continued

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
PHARMACY									
Pharmacy (6) (7).....	3	2			10		29	28	
Dispensatories (8).....			2			10			25
Pharmaceutical Chemistry (9).....	2			10		10	20		
Extemporaneous Chemistry (10).....		2	3		10			19	10
Lectures and Dispensing Practice (11).....			2			20			18
Materia Medica (12) (13).....	5	3		10			17	17	
Materia Medica and Therapeutics (14).....			2						14
Pharmaceutical Assaying (15).....	2	2		10	12		1	4	
General Pharmacy (17).....			2			10			1
Laboratory.....					10			1	
Pharmacy (13) (Vet. Students).....	5						5		
*PHILOSOPHY									
Psychology (51).....	4						21		
Psychology (53).....	6						50		
Logic and Ethics (52).....		4						24	
Logic (54).....		6						52	
History of Modern Philosophy (56).....		6			3			35	
Hist. of Ancient and Medieval Phil. (57)...	6						34		
Advanced Work (59) (60).....	2	2					14	10	
Physiological & Exper. Psychology (61) (62).....		2		4	4		3	3	
Leading Works in Philosophy (63) (64).....	1	2					1	1	
Special.....	2	3			1		2	3	
PHYSICAL EDUCATION									
Young men.....		42						275	
Young women.....		14						100	
PHYSICS									
Elementary Physics (1).....	10	10					97	83	
Mechanics and Heat (2) (51) (52).....	6	7	5				103	75	66
Problems (3).....	2	2	2				32	22	17
Electricity and Magnetism (4).....	3						21		
Physical Laboratory.....				45	36	33	34	41	40
Mechanics, Sound and Heat (53).....	3						46		
Electricity and Magnetism (54).....		3						14	
Thesis and Similar Work.....			7						2
*RHETORIC AND ENGLISH LANGUAGE									
Paragraph Writing (51) (1).....	12						259		
Practical Rhetoric (1) (52).....		12						218	
Analysis of Prose (53) (54).....	8	8					46	58	
Advanced Rhetoric (3).....	4	4					53	41	
Advanced Composition (4).....	4						69		
Rapid Writing (55) (56).....	1	1		3	2		20	17	

* Semester work

TABL. I—THE WORK OF INSTRUCTORS, 1897-98—Continued

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
RHETORIC & ENGLISH LANGUAGE—Concl.									
Brief Making and Argument (57)	3						12		
Short Stories (60)		2						17	
Poetics (59)	2						11		
Studies in Exposition (58).....		3						11	
Rhetorical Theory and Criticism (61) (62)	2	2					6	6	
Thesis and Similar Work.....					2			11	
ENGLISH LANGUAGE									
Old English (51) (52).....	2	2					23	24	
Middle English (53).....	2						5		
Historical English Grammar (54).....		2						8	
*ROMANCE LANGUAGES									
FRENCH									
Elementary French (1) (52).....	16						113		
Modern Prose and Plays (1) (52).....		16						90	
Science Reading (3) (53) (54).....	2	2					21	17	
Modern French Literature (55) (56).....	5	5					51	47	
Recent French Prose Writers (58).....		3						8	
Advanced Prose Composition (59).....	3						13		
French Literature before 17th Century (63)	3						8		
The Development of the French Novel (64)		3						10	
Thesis and Similar Work ..				5	7				
SPANISH									
Grammar and Readings (51) (52).....	2	2					20	16	
VETERINARY MEDICINE									
Anatomy (28)	5			5			12		
General Pathology (29).....		5						10	
Special Pathology (30).....			5						7
General Surgery (24).....	5			5			12		
Clinic (19)				18	24	24	5	15	11
Special Pathology (20) (21).....	3	5	3				9	9	9
General Therapeutics (22).....			5						9
Lectures and General Pathology (14).....	5						5		
Osteology (11).....	5			5			12		
Meat Inspection (27).....	3						4		
Special Pathology (15) (16).....		5	5					5	5
Diseases of the Cow (17).....		3						23	
Surgical Diseases and Operations (18).....	5	5	5		10	10	10	6	3
Lectures (13).....		5	5			5		4	13
Myology (12).....		5			15			17	
Eye Diseases.....			2						9
Anatomical Laboratory (25).....		5			3			9	
Principles of Horse-shoeing (26).....			3						10

*Semester work

TABLE I—THE WORK OF INSTRUCTORS, 1897-98—Concluded

Subjects	Hours per week						Number of students		
	Lectures			Laboratory					
	First Term	Second Term	Third Term	First Term	Second Term	Third Term	First Term	Second Term	Third Term
ZOOLOGY									
Comparative Zoology (1) (51) (52).....	4	4	.....	16	17	.....	70	59	.....
Com. Anatomy of Vertebrates (53) (55).....	1	.....	.....	15	.....	.....	12	.....	.....
Com. Anatomy of Vertebrates (54) (56).....	.....	1	.....	.....	10	.....	.....	11	.....
Entomology (61) (62).....	.....	.....	.....	10	10	.....	4	3	.....
Zoology and Anatomy (58) (60).....	.....	.....	.....	.....	18	.....	.....	13	.....
Economic Entomology (3).....	.....	.....	.....	.....	.....	10	.....	.....	1
Economic Entomology (4).....	2	2	1	.....	.....	2	5	5	5
Systematic and Practical Entomology (7).....	.....	.....	3	.....	.....	.....	.....	.....	3
Comparative Zoology (64).....	.....	2	.....	.....	6	.....	.....	24	.....
Zoology (65).....	.....	.....	.....	18	.....	.....	11	.....	.....

ANNUAL REPORT

TABLE II—SHOWING THE WHOLE NUMBER OF DEGREES IN COURSE CONFERRED
SINCE THE FOUNDING OF THE UNIVERSITY

	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.
Bachelor of arts.....	1	1	6	2	2	1	5	4	6	8	6	1	7	2	6	9	12	19	13	17	18
Bachelor of philosophy.....				2		2	2	1	1	2	6	7	4	8	8	5	5	19	26	27	27
Bachelor of science....	5	5	1	2	5	3	2	4	2	4	4	8	2	10	7	11	7	9	4	10	10
Bachelor of science in agr.....								1	1					2	3	3		2	4	4	5
Bachelor of science in H. & F.....																1	3	1	1	1	2
Bachelor of science, Ind. Arts.....																				1	1
Civil engineer						1	1	1	3	3	4	1	2	2	7	9	7	9	11	4	8
Mechanical engineer.....			1		2	4	1	3	1	2	4	2	3	2	5	2	1	2	4	9	5
Electrical engineer.....															4	9	8	15	17	13	10
Engineer of mines.....			1	1			1	2	4	1	4	2			1	1	4	1	6	3	2
Graduate in pharmacy.....										3		2	3	6	5	5	3	11	12	11	7
Master of pharmacy.....																			1		1
Doctor of veterinary med.....										1		1	4		4	5		4	2	3	
Master of arts.....												1	1	1	2			2		4	4
Master of science.....				1								1	1	2	2		2		3	3	2
Master of agriculture.....																		1	2		1
Master of science in H. & F.....																				1	1
Doctor of philosophy.....	1																1				
Doctor of science.....													1					1		1	
Bachelor of laws.....															9	18	15	16	6	23	22
Master of laws.....															2	4	2		6		
Totals.....	6	7	9	8	9	11	12	16	18	24	28	26	30	36	65	79	70	112	118	135	126

TABLE III—SHOWING THE NUMBER OF STUDENTS IN THE GENERAL, TECHNICAL, AND PROFESSIONAL COURSES

	1890-91.	1891-92.	1892-93.	1893-94.	1894-95.	1895-96.	1896-97.	1897-98.
General courses (College of Arts).....	137	151	194	245	256	322	337	358
Technical courses (other Colleges except Law).....	166	259	381	368	424	453	453	511
Professional courses (College of Law).....	.....	55	67	72	65	100	132	148
*Graduate students and summer school....	2	.....	.....	1	.....	94	97	133
Totals	305	465	642	686	745	969	1,019	1,150

*Until 1896, graduate students have been included in the first three classes.

OHIO STATE UNIVERSITY.

COLUMBUS, O., August 10, 1898.

DR. JAMES H. CANFIELD, President, Ohio State University :

MY DEAR SIR : I have the honor to transmit a report showing the laboratory work done by this Department in Agriculture 12, (Soils) which has been prepared by Associate Professor W. D. Gibbs.

A number of the experiments here outlined are based upon Wahnschaffee's Scientific Examination of Soils. A large number of the pieces, however, therein photographed and described have been designed by Professor Gibbs. I believe the publication of this report would add materially to the cause of agricultural instruction in this country.

Very respectfully submitted,

THOMAS F. HUNT.

PHYSICAL EXAMINATION OF SOILS.

WILLIAM DAVID GIBBS.

Our present courses in agriculture provide for the study of soils five hours per week during the winter term. Three hours per week are devoted to class room lectures or recitations while two hours per week, from two o'clock until four on Fridays, are given to laboratory work on the study of the physical properties of soils. Experiments are arranged with reference to the number of students in the class and the number of laboratory periods in the term. There have been, on the average, about twenty students in the class and ten to twelve periods of laboratory work. By providing ten to twelve experiments and allowing students to work in pairs the entire class may be accommodated at each laboratory period during the term.

The experiments are designed with reference to their scientific and practical value. Many laboratory experiments with soils are unsatisfactory because actual field conditions cannot be obtained, and in this particular are misleading. However, many general principles may be demonstrated and fixed in the student's mind that would never be gained from recitations or lectures.

The soils used in experiments are typical agricultural soils selected with reference to their differences in texture and crop producing powers. The following soils were used by the class during the winter term of 1898:

No. 1. Muck soil. Selected from a very fertile corn field on the Ohio State University Farm.

No. 2. First bottom alluvial loam. Very fertile. Ohio State University Farm.

No. 3. Second bottom sandy loam with considerable clay. Ohio State University Farm.

No. 4. Fine sand (.25 mm. to .1 mm. diameter) Ohio State University Farm.

No. 5. Coarse sand (.5 mm. to .25 mm. in diameter) Ohio State University Farm.

All the soils were air dried. The first three were sifted with a two millimeter sieve which allowed only the fine earth to pass through. All of the soils were placed in bins in the laboratory.

The following is a list of the laboratory experiments with descriptions and illustrations of each:

EXPERIMENT NO. 1.

DETERMINATION OF SPECIFIC GRAVITY.

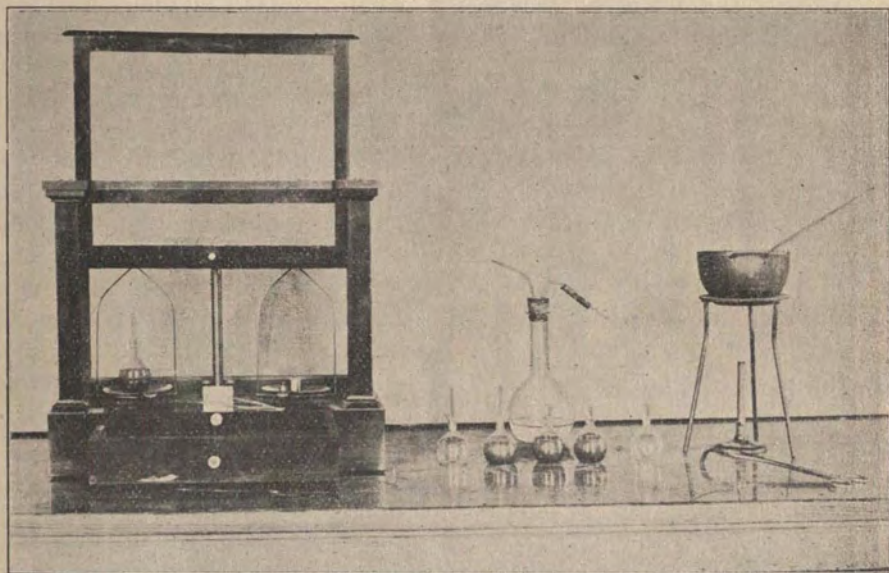
With a flask of 50 cc. capacity and provided with a ground glass stopper, drawn out to an open capillary tube determine specific gravity of four soils which will be provided. Nos. 1, 2, 3 and 4.

Note weight of flask filled with water, pour out about one-half of the water in the flask and put in a weighed quantity (10 grammes) of the soil dried at 110°C ; then boil in a water bath about one minute and entirely fill the flask with water. Weigh.

Calculation: Add weight of soil used to weight of flask filled with water and deduct therefrom weight of flask filled with water and soil. The difference expresses the weight of a volume of water equal to the quantity of soil used.

The specific gravity is found by dividing the weight of the soil by the weight of the water it has displaced.

This experiment shows weights of the various soils as compared with the weight of equal volumes of water. The specific gravity of most soils is about 2.5; that is, soil calculated free of air space weighs about 2.5 times as much as an equal volume of water. The more organic matter a soil contains the less its specific gravity. In general the specific gravity of a soil decreases inversely as its content of organic matter. Specific gravity must not be confused with apparent specific gravity which will be explained in the following experiment:



Determination of Specific Gravity.

EXPERIMENT NO. 2.

DETERMINATION OF THE VOLUME WEIGHT, APPARENT SPECIFIC GRAVITY, AND POROSITY OF SOILS.

Determine the volume weight of four soils which will be provided. Numbers 1, 2, 3, and 4. Weigh the empty tubes carefully. Use the soil direct from the bins and pour into the tube the measure level full. Then place the tube in the compacting machine and allow the weight to fall six times from the twelve-inch mark. Pour in another measure of soil and repeat. Continue this until the tube is filled to the mark near the top. Weigh. Determine at the same time with a special sample the hygroscopic water which escapes at 110°C . Also calculate the number of cubic inches, or centimeters, occupied by the soil in each tube.

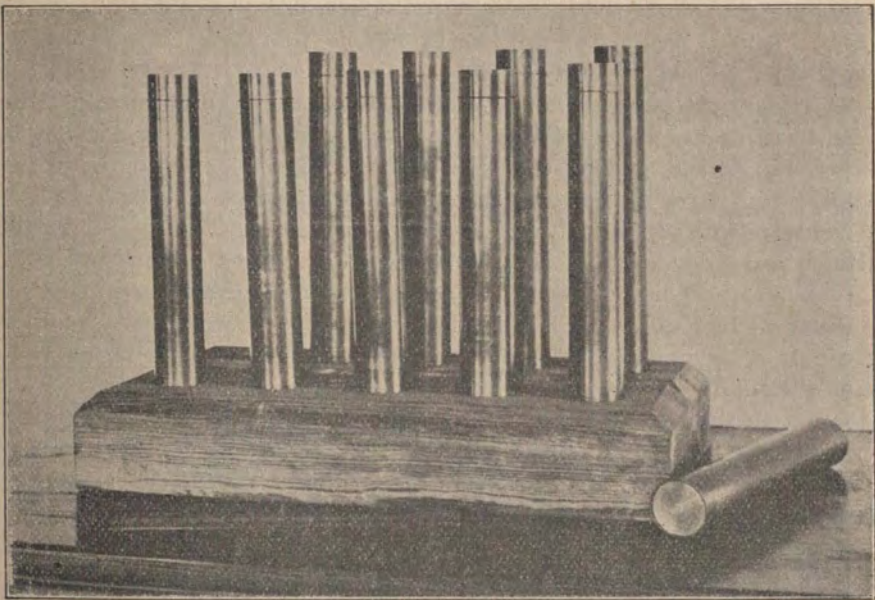
Calculations: Subtract the weight of the empty tube plus the weight of hygroscopic water in the soil used from the weight of the filled tube. This will be the weight of the given volume of soil. The volume weight of a cubic centimeter of soil should then be calculated.

By dividing the volume weight of the soil with the weight of the same volume of water the apparent specific gravity of the soil is obtained.

By dividing this apparent specific gravity with the real specific gravity of the soil obtained in Experiment No. 1, and subtracting from 100, the remainder expresses the per cent. of porosity of the soil, *i. e.*, the space which, in the dry soil, is occupied by air.

The volume weight of a soil varies with the amount of packing. A freshly plowed soil is much lighter per cubic foot than the same soil packed by rains or by tramping. In other words, soil has an apparent and a real specific gravity. Average field soils in good tilth have an apparent specific gravity of about 1.2, and when entirely free from air a real specific gravity of about 2.5.

The compacting machine referred to above was designed to pack all the soils into the tubes uniformly and thus eliminate, in a large degree, the error due to unequal packing in different tubes when making comparisons of apparent specific gravity of different soils. The machine does not do the work with absolute exactness, but seems to be a decided improvement over the uncertain method of filling by hand, which at best, gives very unsatisfactory results. (See accompanying photograph.)



Determination of Volume Weight, Apparent Specific Gravity,
and Porosity of Soils.

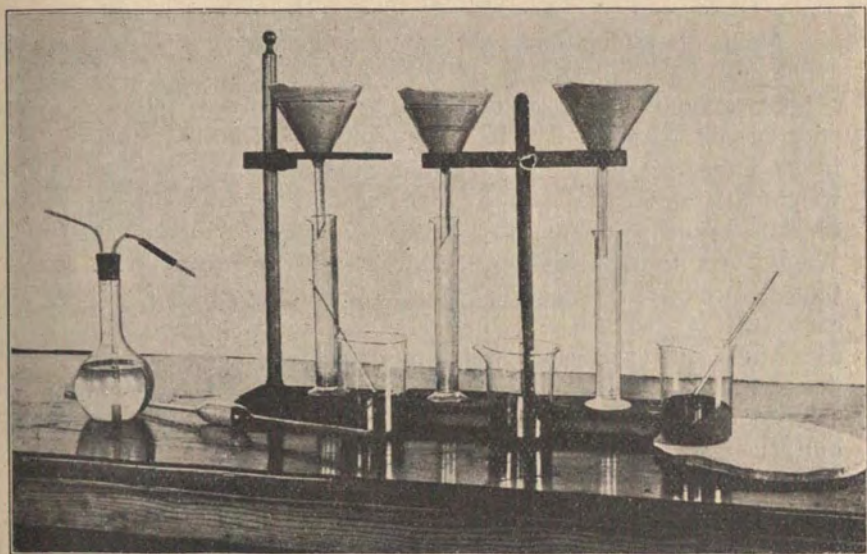
EXPERIMENT NO. 3.

THE POWER OF LOOSE SOILS TO RETAIN MOISTURE.

Use four samples of soil which will be provided. Numbers 1, 2, 3 and 4.

Pour over 100 grammes of the air dry fine soil (in a No. 4 or No. 5 beaker) one hundred cubic centimeters of distilled water, and effect the thorough disintegration and saturation of the soil by stirring with a glass rod. Now rinse the soil with a known quantity of water, admitted from a pipette, upon a filter saturated with water. The water running off is caught in a graduated cylinder of two hundred cubic centimeters capacity, and when no more drips off the quantity is read in cubic centimeters. The difference between the quantity of water used and that caught corresponds with the quantity of water retained by the soil.

Determine at the same time, with a special sample, the hygroscopic water which escapes at 110°C . Determine the per cent. of water obtained by weight. Add to the number of cubic centimeters of water retained the grammes of hygroscopic water and divide by the weight in grammes of the water free soil. The result will be the per cent. of water retained, calculated on the basis of water free soil. This experiment is valuable in illustrating the power of different types of soils to absorb and retain rainfall. One of the advantages of cultivating soil is to make it loose and open in structure, so that rain will be absorbed and retained more thoroughly than would be the case if the soil were uncultivated. Results from this experiment should be studied in connection with those obtained in Experiment No. 4.



The Power of Loose Soils to Retain Moisture.

EXPERIMENT No. 4.

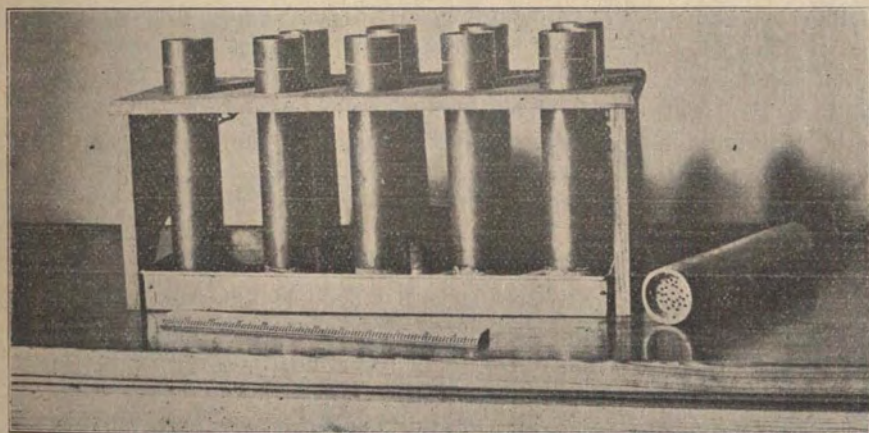
THE POWER OF COMPACT SOILS TO RETAIN MOISTURE.

Make determinations with four soils which will be provided. Numbers 1, 2, 3 and 4.

Place a moist linen rag in the bottom of a brass cylinder. Weigh and then fill, within one inch of the top in the following manner: Pour in one measure of soil. Place cylinder in compacting machine and drop weight six times from the twelve-inch mark. Pour in another measure and repeat. Continue this until cylinder is filled within one inch of the top. Weigh the cylinder again and then place in the pan containing water so that the perforated bottom dips about one-half inch in the water. Then cover with a dish. The cylinders are allowed to remain under the dish until after repeated weighings (for which purpose they are placed in a shallow pan) they show an approximately constant weight. The student will need to return to this experiment from day to day until this constant weight is obtained.

Determine at the time of beginning the experiment, with a special sample, the hygroscopic water which escapes at 110°C .

Calculation: Add to the weight of the water absorbed, the weight of the hygroscopic water, and divide by the weight of the water free soil. The result will be the per cent. of water retained, calculated on the basis of water free soil.



The Power of Compact Soils to Retain Moisture.

EXPERIMENT No. 5.

RATE OF PERCOLATION OF WATER THROUGH SOILS.

The series of tubes have been filled within one inch of the overflow pipes with soils 1, 2, 3, 4 and 5. The compacting machine was used.

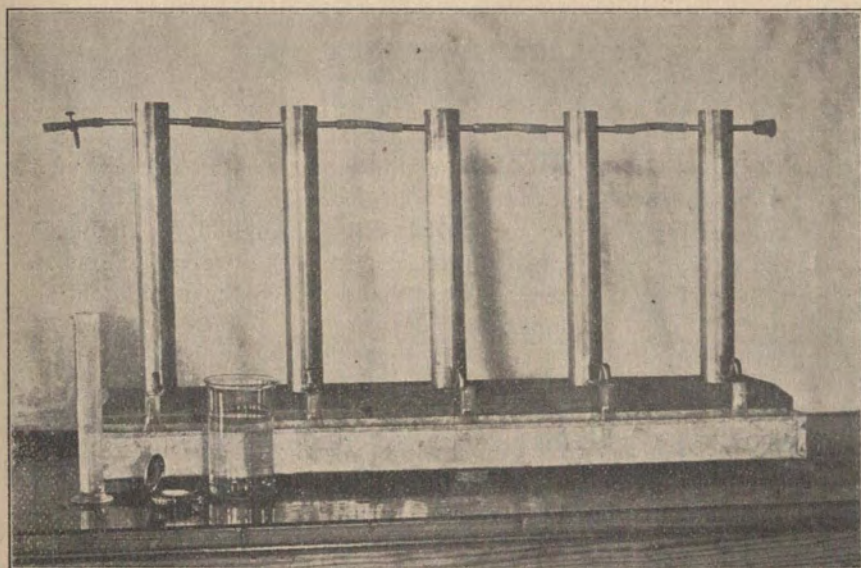
After each measure of soil was put in the weight was dropped three times from the eight-inch mark. The surface of the soil in each tube is covered with one inch of coarse gravel to prevent the soil being disturbed by flowing water.

See that all tubes are connected by rubber tubing and the extreme ends of small tubes corked.

Pour in distilled water gently and keep the cylinders almost level full. After the flow into the glass flasks has become uniform, note the number of cubic centimeters which flow through in half an hour. Determine this by measuring in a graduated cylinder.

The character of soils used may be examined in the boxes. The tube number corresponds with the soil number.

This experiment brings out the differences between soils in regard to the rate of percolation of water through them. Other things equal it is desirable that a soil should allow water to pass through slowly, holding moisture the greatest length of time within the reach of crop roots.



Rate of Percolation of Water Through Soils.

EXPERIMENT No. 6.

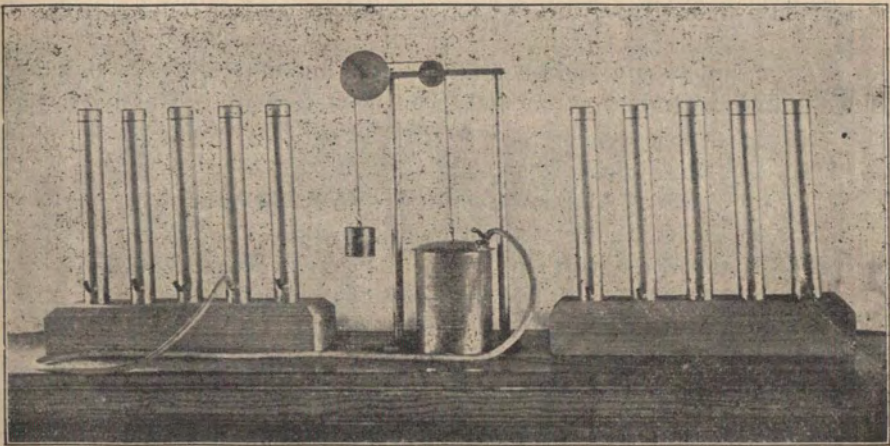
RATE OF PERCOLATION OF AIR THROUGH SOILS.

Soils 1, 2, 3, 4 and 5 are used in this experiment. The cylinder numbers correspond with soil numbers.

The compacting machine was used in filling the cylinders; after each measure the weight was dropped three times from the twelve-inch mark.

Open the cock on the copper cylinder and detach the hook holding the weights. Allow the copper cylinder to sink *by its own weight*. Attach the rubber tube to soil tube No. 1; attach the weight hook and note the number of degrees passed by the pointer in ten minutes. Record the rate for each of the five soils.

This experiment has a direct practical bearing on the question of soil ventilation. Soil air is essential to the life of nitrifying and other bacteria which develop fertility. Other things equal the more readily soil will allow air to circulate through it the more favorable conditions will be for the formation of plant food.



Rate of Percolation of Air Through Soils.

EXPERIMENT No. 7.

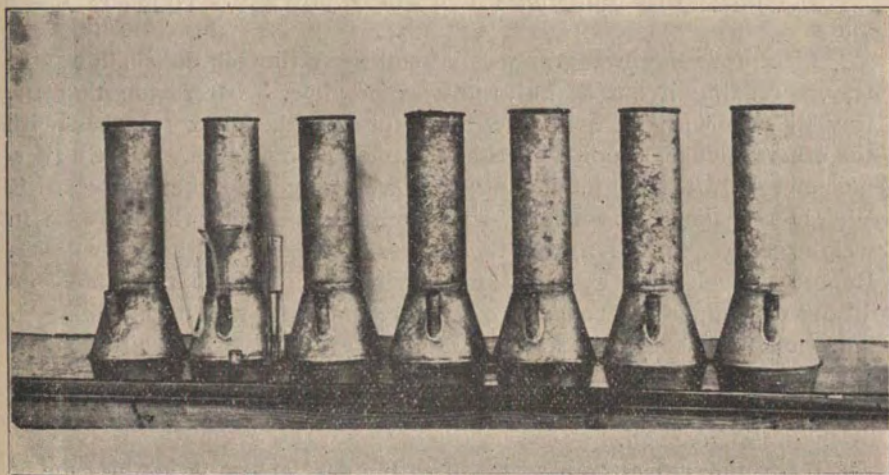
EFFECT OF MULCHES ON EVAPORATION OF WATER FROM SOILS.

The cylinders are eighteen inches deep by four inches in diameter and are filled with first bottom soil from the Ohio State University Farm.

- No. 1. Not mulched.
- No. 2. Not mulched.
- No. 3. Surface cultivated two inches deep. (Soil mulch.)
- No. 4. Surface cultivated two inches deep. (Soil mulch.)
- No. 5. Mulched with two inches of coarse gravel.
- No. 6. Mulched with two inches of fine sand.
- No. 7. Mulched with two inches of sawdust.
- No. 8. Mulched with two inches of cut straw.
- No. 10. Not mulched. (Placed in draft.)
- No. 11. Not mulched. (Placed in draft.)

Fill the cylinders to the same level with distilled water every twenty-four hours for one week and keep a careful record of the amount of water used each day. The "S" glass tube will be used to determine the exact level to which the tubes should be filled.

The cylinder which evaporates the least water during the period of observation should be the one having the most effective mulch.



Effect of Mulches on Evaporation of Water from Soils.

EXPERIMENT No. 8.

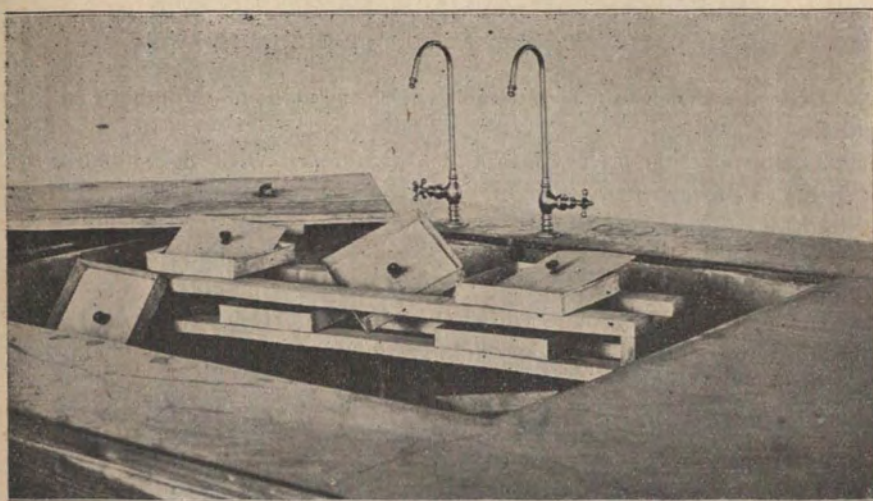
BEHAVIOR OF THE SOIL TOWARDS GASES.

Determine with four soils which will be provided. Numbers 1, 2, 3 and 4.

Place four hundred grammes of soil from the bin in shallow zinc tray, spreading it out as uniformly as possible. After weighing the tray (lid on) with the soil, place an empty weighed box together with the others (lids off) upon a shelf in the pneumatic trough. Place a thermometer in the trough, and at each weighing read the temperature. Weigh each box every twenty-four hours and deduct the increase in weight of the empty box from the increase in weight of the other boxes. Repeat the weighings every twenty-four hours until with the same conditions of temperature an approximately constant weight is obtained. The moisture retained is calculated for 100 grammes of the soil dried at 110°C , and may be called the absorbent capacity for aqueous vapor. Add to the increase weight the weight of hygroscopic water and divide by the water free soil.

Determine moisture of each soil with a special sample at the time or starting the experiment.

This experiment brings out the fact that dry soils absorb only a very small amount of moisture from the air, even when the air is saturated, thus correcting an opinion which is prevalent but erroneous.



Behavior of the Soil Towards Gases.

EXPERIMENT No. 9.

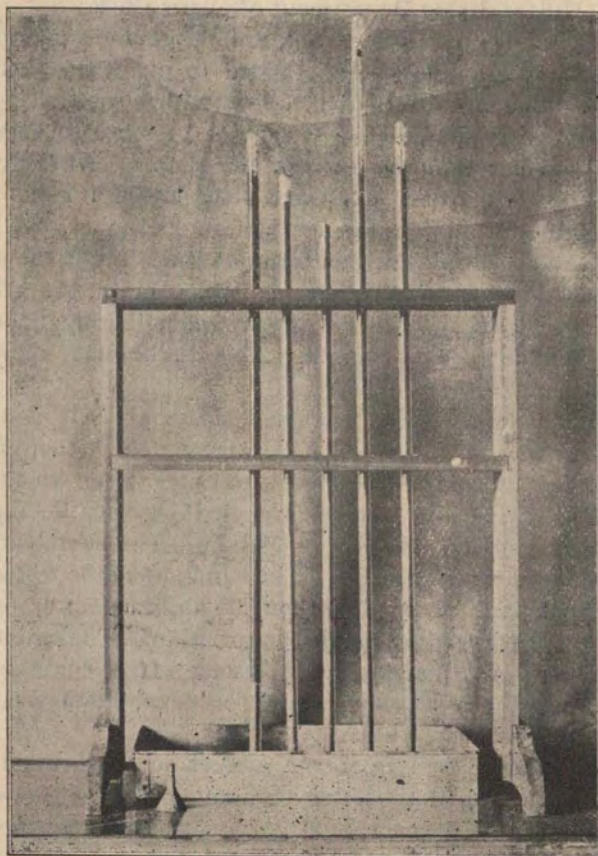
CAPILLARY ATTRACTION OF THE SOIL.

Determine with four soils which will be provided. Numbers 1, 2, 3 and 4.

The lower ends of the glass tubes are closed with fine muslin by drawing a rubber ring over them. Fill the tubes, tapping them gently, with air-dry fine soil, and insert them one or two centimeters deep in an iron tray containing water. The tubes should be held by supports which keep them suspended in the water.

Determine the height to which the water has risen each twenty-four hours for seven days, and record daily height for each and also total height in seven days.

The experiment is not entirely satisfactory from the fact that it is difficult to fill the tubes uniformly, and difficult to read accurately the height of the capillary water. But the results are sufficiently accurate to demonstrate the principle that soils of fine texture have greater capillary power than those of coarse texture.



Capillary Attraction of the Soil.

EXPERIMENTS Nos. 10 AND 11.

MECHANICAL ANALYSIS OF SOILS.

A modification of the method used in the Laboratory of the Division of Soils, United States Department of Agriculture.

Twenty grammes of "fine earth" are weighed out and placed in a porcelain mortar. Enough water is added to give the soil the consistency of paste. The mixture is then rubbed with a rubber tipped pestle.

In rubbing, there should be just enough pressure to detach adhering particles and not enough to break the grains. After five minutes rubbing, more water may be added and after letting it stand for two or three minutes, the turbid liquid is decanted into a beaker, "A." Repeat this pestling and decanting until an examination through the microscope shows the grains to be perfectly clean. When clean, the grains show sharp outlines and are transparent, while any adhering finer particles make them round and deeply colored. This pestling may require fifteen minutes to an hour or more.

When the material is thoroughly disintegrated, it is transferred from the mortar to a No. 2 or No. 3 beaker which is then filled with water, stirred and allowed to stand a few minutes, after which it is carefully decanted, leaving the last twenty or thirty cc, the liquid being added to the beaker "A." This is repeated until the sand is free from clay, fine silt, and much of the silt. The sand should be tested with the microscope. All particles smaller than .05 millimeters are silt or fine silt and should be removed by further decantation. The sediment in the bottom of beaker "A" should also be tested. If it contains particles larger than .05 millimeters, the washing or decantation was too rapid. In this case a recovery must be made.

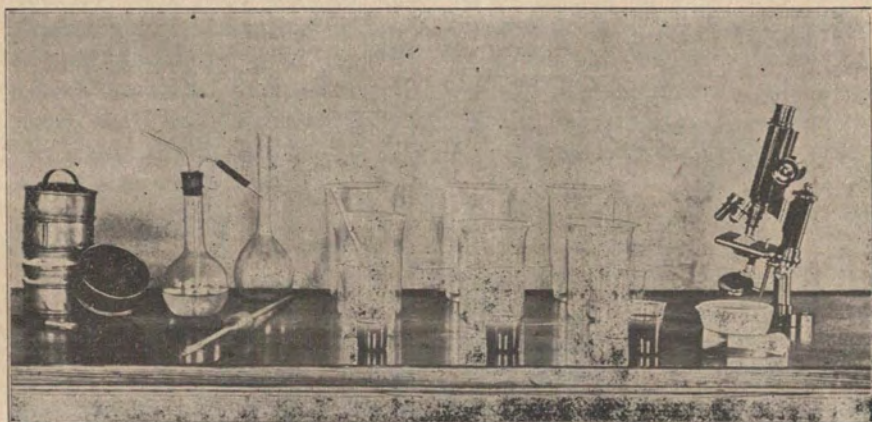
The sand is transferred from the beaker to a porcelain dish and dried. It is then ignited to destroy organic matter, after which it is sifted through a nest of sieves of 1, .5, .25, and .1 millimeter respectively, that going through the finer sieve being known as very fine sand. These five separations are *each separately* weighed.

The amount of silt, fine silt, and clay which was washed away from the sand may be obtained approximately by subtracting the total weight of sand, moisture and organic matter from the earth taken (20 grammes).

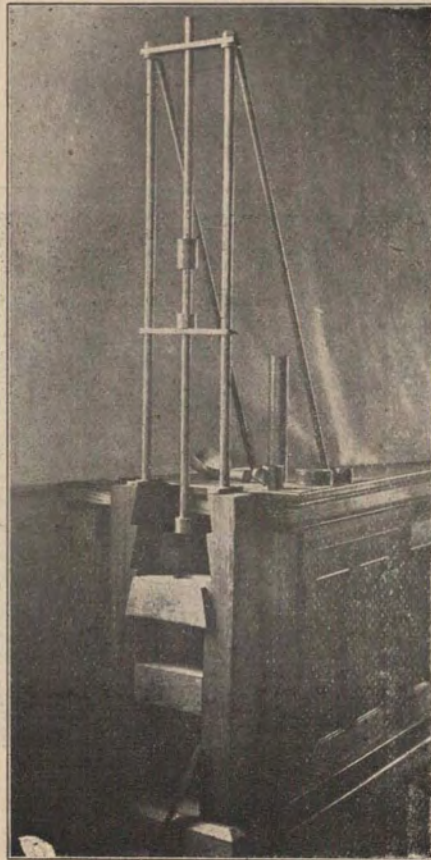
Considerable time and skill is required to make the separation of silt, fine silt, and clay. It will not be attempted in this experiment.

The following are the sizes into which the soil particles are separated:

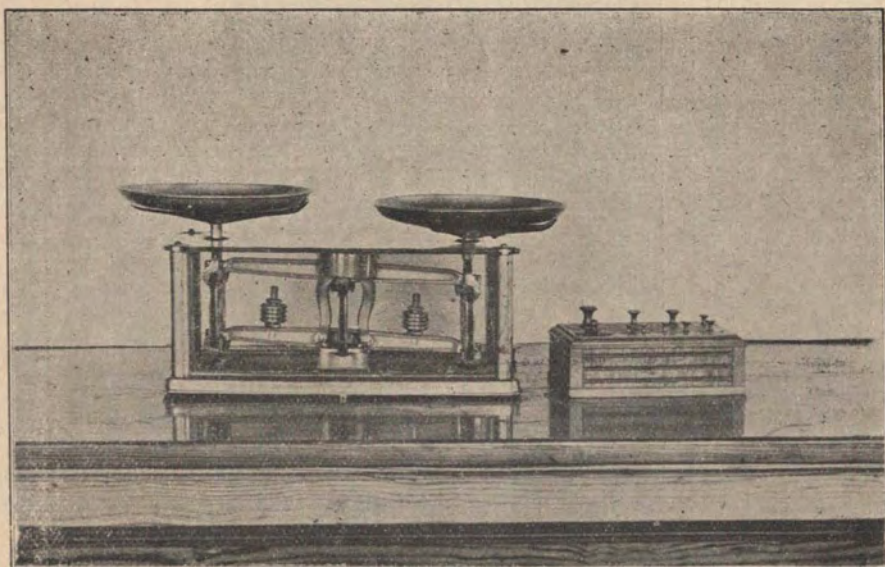
- No. 1—Gravel 2—1 mm.
- No. 2—Coarse sand 1— .5 mm.
- No. 3—Medium sand .5 - .25 mm.
- No. 4—Fine sand .25— .1 mm.
- No. 5—Very fine sand .1— .05 mm.
- No. 6—Silt .05— .01 mm.
- No. 7—Fine silt .01— .005 mm.
- No. 8—Clay .005— .0001 mm.



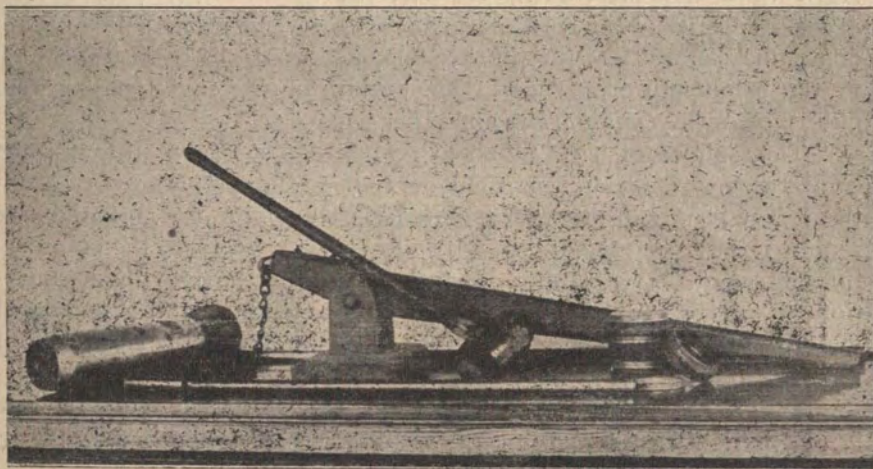
Mechanical Analysis of Soils.



Soil Compacting Machine. (See Experiment II.)



Torsion Balance.



Apparatus for Taking Soil Samples.

Department of Agricultural Chemistry.

The following investigations were conducted in the Department of Agricultural Chemistry during the past year :

1. A series of analyses of sugar beets was undertaken in order to determine the best localities in the state of Ohio for raising beets adapted to the manufacture of sugar. The results of the investigation were published in the *Ohio Farmer* and other papers.

The samples of beets obtained represented a section through the central part of the state from the lake shore to the southern tier of counties. The results of the work pointed clearly to the fact, that the lake region is best adapted to the growing of sugar beets for the manufacture of sugar, the beets from this part of the state being without exception above the requirements as generally accepted for the successful manufacture of sugar both in content of sugar and in the coefficient of purity of the juice.

2. An experiment was successfully carried out in regard to the production of root tubercles in water culture. The results of this investigation were embodied in the thesis of Mr. J. C. Britton.

3. The testing of soils for determining the ingredients of plant food has been commenced on a sample of soil sent by Mr. F. F. Neil, Venice, Ohio. Mr. Neil is a grower of celery, and for this reason the test is being made with celery plants.

It is hoped that the department may in the near future be of service to farmers throughout the state, who are not in the position to make soil tests for themselves.

A few Results of Systematic Gymnasium Work.

After only four months of regular, systematic work in physical training among the young women of the Ohio State University, it is very interesting and enlightening to make a comparison of the young woman as she was on entering the gymnasium with her condition at the close of the year.

In January, when the Department of Physical Training was established, all students on entering were examined and some thirty bodily measurements were taken of each. In June these same measurements were taken again and it is from these that we are able to get a correct idea of each student's development.

Four months is a very short time within which to secure pronounced improvements. It is very gratifying, therefore, to those interested in the actual help given by physical training, to find that among the young women, more than three-fourths show an increase in most of the measurements; half show a very marked increase in practically all measurements while only a few show a marked falling off which, in nearly every case, is accompanied by a record of excessively heavy college work or a prolonged illness.

It may be interesting to follow out the measurements of a few young women, giving only the most important ones and cutting out those that are of interest only to Anthropologists and of value only in determining deformities.

It is very evident, since the heart and lungs are the organs which most strongly influence life, that the measurements of the thorax (increasing or decreasing) will indicate, other things being equal, a corresponding increase or decrease in ability to carry work. For an example, the greater the girth and depth of chest, the greater the expansion of the lungs and the greater the amount of fresh air that can be taken in. Following this still farther, the greater the amount of oxygen taken into the lungs, the greater the power to resist disease. It is the measurements of the chest girth, chest depth, waist and ninth rib girth, and capacity of lungs that indicate the power of survival.

The following show the measurements as taken in January and again in June with the increase in each case :

	Chest girth expanded inches.	9th rib girth expanded inches.	Waist girth inches.	Chest depth inches.	Capacity of lungs cubic inches.
A.					
January.....	34	26.4	26.5	7.3	128
June.....	35.3	27.2	28.1	7.7	150
Increase.....	1.3	.8	1.6	.4	22
B.					
January.....	32.7	26.6	25.1	6.9	140
June.....	33.7	27.	25.5	7.	162
Increase.....	1.	.4	.4	.1	22
C.					
January.....	30.2	24.	21.9	6.1	125
June.....	31.2	24.9	22.6	6.4	150
Increase.....	1.0	.9	.7	.3	25

Many cases do not improve in all measurements but develop in the parts most easily affected and most needing development; while other parts remain the same or are reduced from too large measurements to those more nearly normal.

	Chest girth expanded inches.	9th rib girth expanded inches.	Waist girth inches.	Chest depth inches.	Capacity of lungs cubic inches.
January.....	32.4	27	24.7	6.5	140
June.....	33.2	27	24.7	6.7	172
Increase.....	.8	0	0	.2	32

Averaging twenty-five of these typically good cases the average development in the four months proved to be

	Chest girth expanded inches.	9th rib girth expanded inches.	Waist girth inches.	Chest depth inches.	Capacity of lungs cubic inches.
Average increase.....	1	.7	.57	.15	16

For the sake of the "uninitiated" it will be well to say that an expansion in chest girth of half an inch in four months is considered an exceptionally good result. Of course there are a few cases that might be called almost abnormal, in which the change far exceeds this. One young woman of the University gained in chest girth quite three inches in four months—but this should not be taken as the rule or at all as a generally desirable result.

The results given in the tables above are extremely satisfactory.

Report of the Treasurer.

COLUMBUS, OHIO, June 30, 1898.

To the Honorable JOHN T. MACK, President Board of Trustees of the Ohio State University.

SIR: I beg to hand you herewith my annual report for the fiscal year ending the 30th day of June, 1898. This report is accompanied by proper vouchers for all disbursements.

Respectfully submitted,

F. W. PRENTISS, Treasurer.

STATEMENT I.

DETAILED STATEMENT OF RECEIPTS BY F. W. PRENTISS, TREASURER, DURING
FISCAL YEAR ENDING JUNE 30, 1898.

Date.	From whom received.	For what purpose.	Amount.	Total.
1897.				
June 30	To balance.....			\$19,782 38
July 10	U. S. Treasury.....	Cong. app. year ending June 30, 1898.....		23,000 00
31	W. C. McCracken	Sale of old iron.....		10 00
Aug. 19	E. H. Gay & Co., Boston	100 M. O. S. U. certificates @ \$104.31 and interest		105,279 30
Sept. 21	Nat. Brick Mfrs. Assn..	Endowment scholarship..	\$250 00	
	J. W. Groves.....	Sale of old stoves.....	3 00	
	Geo. Kauffman.....	100 coup. c'rds for stud'nts	500 00	753 00
27	Geo. Kauffman.....	80 " " " " " " " "	400 00	
	Geo. Kauffman.....	8 and 9 insts. rent 96-7 pt. 97-8.....	135 00	535 00
Oct. 9	Comrs. Sinking Fund.	Int. on endowment.....		8,500 00
	Auditor of State.....	Req. No. 80 O. S. U. fund		12,661 01
	G. B. Kauffman	Sale of 60 coup. cards.....	300 00	
	Alexis Cope, Bursar...	Students' fees.....	8,936 29	9,236 29
Nov. 4	Auditor of State.....	Req. No. 80 O. S. U. fund		12,808 51
	T. & O. C. Ry Co.....	Error in freight, account of Biol. building.....	7 73	
	L. H. Goddard.....	2 pieces Bedford stone, Town's Hall.....	1 41	
	G. B. Kauffman.....	Supplies sold students...	514 27	
	Emerson McMillin.....	Acc't Fellowship Astron.	150 00	
	G. W. Knight	2-3-4-5 insts. rent 1896-7	150 00	
	W. T. Magruder.....	Sand and stone, Twn. H'l	3 90	
	C. W. Mesloh.....	1 and 2 insts. rent 1897-8..	36 00	863 31
15	Comrs. Sinking Fund	Int. on endowment.....		3,500 00
16	G. B. Kauffman	2 inst. rent 1897-8.....	45 00	
	E. A. Hitchcock.....	Stone, etc.....	1 20	
	The Fish Stone Co.....	Stone sold by Prof. Hunt	35 00	
	S. I. Isabel.....	Stone, etc.....	6 12	87 32
	Auditor of State.....	Req. No. 82 O. S. U. fund	16,348 90	
	Auditor of State.....	" 83 " " " "	8,025 00	24,373 90
30	B. F. Thomas.....	1-2-3 insts. rent 1897-8....	127 50	
	Alexis Cope, Bursar...	Students fees.....	679 29	806 79
	Auditor of State.....	Req. No. 85 O. S. U. fund		12,808 51
Dec. 7	Auditor of State.....	" 85 " " " "	12,895 17	
	Auditor of State.....	" 86 " " " "	16,181 45	29,076 62
20	Seasongood & Mayer	Proceeds 50 M. bonds sold December 17, 1897.....		52,341 25
30	Emp. Liab. Ins. Co.....	Physician's fee, attending W. Blinco.....	5 00	
	G. B. Kauffman.....	3 and 4 insts. rent 1897-8..	90 00	95 00
	Comrs. Sinking Fund	Int. on endowment.....		4,481 10
1898.				
Feb. 4	Alexis Cope, Bursar ...	Students fees.....		6,375 00
	G. W. Kauffman.....	40 coup. c'rds s'ld stud'nts	200 00	
	G. W. Kauffman.....	5 inst. rent 1897-8.....	45 00	
	G. W. Kauffman.....	20 coup. c'rds s'ld stud'nts	100 00	
	H. A. Weber.....	Tickets sold T. H. Ded....	17 00	

STATEMENT I—Continued.

Date.	From whom received.	For what purpose.	Amount.	Total.
1898.				
Feb. 4	G. W. Knight.....	6 and 7 inst. rent 96-7.....	\$75 00	
	B. F. Thomas	4 and 5 inst. rent 97-8.....	85 00	
	Edw. Orton, Jr.	Cash rec'd Dept. Ceramics	9 72	\$531 72
11	Comrs. Sinking Fund.	Int. on endowment	3,500 00	
	Alexis Cope, Bursar...	Student fees.....	2,935 06	6,435 06
22	Auditor of State.....	Req. No. 1, O. S. U. fund.....	3,380 40	
	Auditor of State.....	Req. No. 2, O. S. U. fund.....	13,285 17	16,665 57
	Emerson McMillin....	Last 2 qrs. end. E. McM. Fellowship	150 00	
March 10	G. B. Kauffman.....	20 coupon cards sold students	100 00	250 00
	Auditor of State.....	Req. No. 3, O. S. U. fund.....	13,285 17	
	Auditor of State.....	Req. No. 4, O. S. U. fund.....	3,283 83	16,569 00
	T. F. Hunt.....	Disc on pur. M. Lilly Co.	2 93	
	G. B. Kauffman	6th inst. rent 1897-8.....	45 00	
	G. W. Knight	8, 9, 10, inst. rent 96-7; 1st 1897-8.....	150 00	197 93
11	Comrs. Sinking Fund.	Int. on Endowment.....		3,000 00
April 5	G. B. Kauffman.....	20 coupon cards sold.....	100 00	
	Narragansett Mnf. Co.	Goods returned	11 50	
	C. W. Mesloh	3, 4, 5, inst. rent, 1897-8.....	54 00	
	B. F. Thomas	6 and 7 inst. rent 1897-8.....	85 00	250 50
	Alexis Cope, Bursar...	Fees of students.....		5,115 65
11	Auditor of State	Req. No. 6, O. S. U. fund.....	13,250 17	
	Auditor of State.....	Req. No. 7, O. S. U. fund.....	6,879 24	20,129 41
	G. W. Knight	2nd inst. rent, 1897-8.....		37 50
May 3	Comrs. Sinking Fund	Int. on Endowment.....		4,500 00
	C. W. Burkett	For ribbed glass sold.....	1 25	
	W. T. Magruder	For old iron sold.....	60	
	G. B. Kauffman.....	40 coupon cards sold.....	200 00	
	G. B. Kauffman.....	7th inst. rent, 1897-8.....	45 00	
	Col. Supply Co.	Goods returned	1 98	
	G. B. Kauffman.....	Sale store room supplies.....	100 00	
	G. W. Knight.....	3 and 4 insts. rent, 1897-8	75 00	
	Crosby St. Gauge Co...	Goods returned.....	18 00	441 83
9	Auditor of State.....	Req. No. 8, O. S. U. fund.....	12,938 57	
	Auditor of State.....	Req. No. 9, O. S. U. fund.....	9,150 00	22,088 51
27	Auditor of State.....	Req. No. 10, O. S. U. fund.....		12,990 01
31	C. W. Mesloh	6, 7, 8, inst. rent, 1897-8.....		54 00
	Briggs & Smith Co....	Proceeds 10 M. bonds sold May 25, 1898.....		10,645 50
June 16	Auditor of State.....	Req. No. 11, O. S. U. fund.....		5,452 56
	E. A. Eggers	Ground rent June 1-Dec. 11, 1897-June 1, 1898.....		112 50
	Alexis Cope, Bursar...	Students fees.....		1,155 70
27	Comrs. Sinking Fund.	Int. on Endowment.....		5,492 01
	B. F. Thomas	8, 9, 10 inst. rent 1897-8.....	127 50	
	W. C. McCracken	Sale of old iron.....	1 65	
	F. C. Clark.....	Moneys rec'd from business men of college for Dept. Econ. and Sociology	850 00	
	Alexis Cope, Bursar...	Students fees	12 01	991 16
28	W. H. Scott.....	Unclaimed order No. 56, yr. ending June 30, '97..	1 25	

STATEMENT I—Concluded.

Date.	From whom received.	For what purpose.	Amount.	Total.
1898.				
June 28	Col. Construction Co..	Unclaimed order No. 1812 yr. ending June 30, '97..	47 67	.....
	Col. Construction Co..	Unclaimed order No. 3090 yr. ending June 30, '97..	1 26	.....
	Col. Construction Co..	Unclaimed order No. 3169 yr. ending June 30, '97..	727 50	.....
	Shilling Fdy. Co.....	Unclaimed order No. 3314 yr. ending June 30, '97..	1 50	.....
	Wm. Whitestone	Unclaimed order No. 3473 yr. ending June 30, '97..	45 00	.....
	Wash Townshend.....	Unclaimed order No. 3481 yr. ending June 30, '97..	30 00	854 12
	John Otts.....	Unclaimed order No. 177 yr. ending June 30, '98..	40	.....
	C. W. Fridley.....	Unclaimed order No. 3981 yr. ending June 30, '98..	1 00	.....
	J. F. Roberts.....	Unclaimed order No. 4018 yr. ending June 30, '98..	2 00	3 40
29	Alexis Cope, Bursar...	Students fees	7 50	.....
	Geo. B. Kauffman.....	8, 9, 10 insts. rent 1897-8..	135 00	.....
	Geo. B. Kauffman.....	Sales store room cards and cash.....	200 00	342 50
	Total receipts.....	.....	.....	\$461,680 43
30	By balance.....	.....	.....	495 36
				\$462,175 79

STATEMENT II.

DETAILED STATEMENT OF DISBURSEMENTS BY F. W. PRENTISS, TREASURER,
DURING FISCAL YEAR ENDING JUNE 30, 1898.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
July 1	Spahr & Glenn.....	Exam. questions printed.....	1	\$4 25
	Westbote Co.....	" "	2	2 50
	F. A. Cole & Co.....	Coal	3	37 38
	L. H. Goddard	Photo. materials bought	4	5 25
	Nitschke Bros.....	250 programs.. ..	5	4 50
	Col. Rubber & Belt. Co.	Pipe, valves, etc.....	6	151 30
	Col. Sewer Pipe Co	Pipe	7	2 55
	F. S. Johnston	94 hours stenog. @ 12½ c.....	8	11 75
	Spahr & Glenn	Envelopes.....	9	75
	Ohio Agr. Exper. Sta....	Chemicals, etc.....	10	36 38
	Thos. Boude.....	14 days @ \$1.50.....	11	21 00
	A. Chantler	26 "	12	39 00
	Thos. Algeo	26 "	13	39 00
	Thos. Boude	14 "	14	21 00
	Jas. Stainbrook.....	11 "	15	16 50
	M. Peck.....	26 "	16	39 00
	J. L. D. Nichols.....	15 "	17	22 50
	Chas. Orendorf.....	12 "	18	18 00
	Henry Powers.....	5 "	19	7 50
	Tallmadge Hdwe. Co ...	Hardware	20	2 20
	The Flk. Laundrying Co	Laundering	21	4 50
	J. G. Biddle	Dynamometer spring ..	22	2 09
	Tallmadge Hdwe. Co ...	Hardware	23	70
	Geo. Martin.....	17½ hours @ 15c.....	24	2 62
	A. L. Buckman.....	5 yards paper @ 4c.....	25	20
	A. E. Loeb	1½ hours @ 15c.....	26	22
	G. E. Stechert.....	1 book	27	1 93
	Payne M. D. Hdw. Co ..	Cans, etc	28	21 13
	Frankenberg Bros.....	Boxes, cards, etc.....	29	1 70
	Glass & Pot. Wld. Co ...	1 year's subscription	30	1 00
	The Seraphim Bindery..	Book binding	31	62 95
	Kelton & Converse	Lumber	32	3 60
	C. H. Woodruff.....	12 hours carp. work @ 29¼ c...	33	3 33
	Kelton & Converse	Lumber.....	34	4 32
	Buckeye Buggy Co	Wagon shaft, top, etc.....	35	8 50
	Stitt, Price & Co.....	Lime	36	1 20
	O. V. Brumley.....	Cleaning skeleton of bull.....	37	5 00
	A. W. Kiler	Sulphur, etc.....	38	2 74
	W. B. Calkins	28 hours @ 15c.....	39	4 20
	N. P. Oglesby.....	116 "	40	17 40
	McClelland & Co.....	Tablets, ink eradicator.....	41	73
	W. U. Telegraph Co.....	Messages.....	42	1 98
	C. U. Telephone Co.....	Telephone service	43	1 05
	W. J. Davidson.....	Straw	44	1 00
	Mt. Gilead Pottery.....	Flower pots	45	11 45
	W. A. Kellerman	Postage, etc	46	2 88
	Strobridge Litho. Co....	Diplomas, etc	47	118 50
	Col. Transfer Co	Carriage service.. ..	48	4 00
	Green, Joyce & Co.....	Ribbon	49	23 25
	C. O. Oil Co.....	1 barrel oil.....	50	11 13
	T. Ewing Miller.....	Office rent, 6 mo. to July 1, etc	51	111 90
	Schoedinger Fearn & Co	Hardware	52	98
	C. Durner	Sharpening tools.....	53	40 15
	Col. Brass Co.....	1 rubber ball for syphon	54	25
	Kelton & Converse.....	Lumber.....	55	12 90

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Total.
1897.				
July 1	H. Braun Sons & Co.....	Oil, etc.....	56	\$5 70
	Col. Rubber & Belt'g Co.	Ties, etc.....	57	2 18
	Hanna Paint Mfg. Co....	Paint ..	58	4 05
	Col. Supply Co.....	Pipe and fittings.....	59	22 31
	A. W. Kiler.....	4 pounds ochre.....	60	25
	Bissell, Dodge & E. Co..	100 feet conduit, etc.....	61	7 34
	Sawyerman Elec. Co.....	Elect. supplies.....	62	82 56
	P. Hayden Foundry Co..	Grate bars.....	63	10 80
	Stitt, Price & Co.....	1 bbl. clay.....	64	2 00
	Joe Garretson.....	6 days @ \$1.50.....	65	9 00
	S. T. Knight.....	200 feet sewer @ 20c.....	66	40 00
	A. E. Loeb.....	28 hours work @ 15c.....	67	4 20
	Geo. Martin.....	43½ " ".....	68	6 53
	H. S. Riddle.....	22 " ".....	69	3 30
	J. E. Brown.....	45 hrs. campus work @ 12½c..	70	5 63
	S. Sigler.....	110 " ".....	71	13 75
	D. N. Duncan.....	24 " ".....	72	3 00
	H. Chantler.....	116 " ".....	73	14 50
	W. R. Price.....	91½ " ".....	74	11 40
	J. E. Appleten.....	20 " ".....	75	2 50
	J. C. Britton.....	203 " ".....	76	30 45
	C. G. Morrow.....	70 " ".....	77	8 75
	F. Rubins.....	11 " ".....	78	1 38
	A. F. Wilcox.....	227 " ".....	79	34 05
	W. Chantler.....	61 " ".....	80	7 63
	W. Gilmore.....	15 " ".....	81	1 88
	H. H. Loomis.....	22 " ".....	82	2 75
	T. J. Dundon & Co.....	Lumber.....	83	148 67
	Engelke & Bigelow.....	Freight and cartage.....	84	513 40
	C., H. V. & T. Ry. Co...	".....	85	48 30
	C., C. & St. L. Ry. Co.	".....	86	8 31
	F. Ward.....	Weighing material.....	87	31 66
	Taylor, Beall & Co.....	Stone.....	88	238 25
	Bedford Stone Co.....	Bedford stone.....	89	218 69
	R. A. McClure.....	Mill work.....	90	800 00
	J. W. Coulson.....	Painting and glazing.....	91	100 00
	Van Dorn Iron Wks. Co.	Joist hangers.....	92	50 92
	C., S. & H. Ry. Co.....	Freight.....	93	709 19
	Lawrence Press Co.....	Scratch pads.....	94	75
	Col. Brick & Terra C. Co.	Press brick.....	95	849 12
	F. O. Schoedinger.....	Heating and vent. pipes.....	96	202 90
	Standard Oil Co.....	Engine oil.....	97	1 05
	W. U. Terra Cotta Co...	Terra cotta.....	98	1,500 00
	Ruggles-Gale Co.....	Stationery, etc.....	99	13 35
	B. & O. Ry. Co.....	Car service.....	100	20 50
	Champlin Printing Co..	Printing.....	101	2 50
	Col. Supply Co.....	Sundries.....	102	47 35
	Bldg. Material Sup. Co..	Ties.....	103	149 00
	Fultonham Brick Co...	Common brick.....	104	777 40
	Schoedinger Fearn & Co.	Hardware.....	105	106 72
	Col. Sewer Pipe Co.....	Pipe.....	106	23 18
	Kilbourne-Jones Co.....	Hardware.....	107	33 73
	Homegartner Sand Co..	Sand.....	108	60 46
	Penn. Fuel Co.....	Lime.....	109	371 49
	Fred Kuhn.....	16 hrs. st. cut. Town Hall 40c..	110	6 40

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
July 2	F. F. D. Albery	3 lectures law school.....	111	\$12 00
3	E. B. Kinkead	228 law lectures, @ \$1.00.....	112	228 00
	E. O. Randall	121 " " ".....	113	121 00
	D. F. Pugh.....	136 " " ".....	114	136 00
	J. H. Collins.....	19 " " ".....	115	19 00
	W. H. Page	218 " " ".....	116	218 00
	G. W. Knight	82 " " ".....	117	82 00
	Homegartner Sand Co.....	Sand	118	89 24
	Penn. Fuel Co.....	Hauling sand.....	119	19 12
	Paul Jones.....	55 law lectures @ \$1.00.....	120	55 00
	F. F. D. Albery	34 " " ".....	121	34 00
	J. H. Randall.....	15 hours carpenter work @ 25c.....	122	3 75
	C. H. Woodruff.....	Carpenter work.....	123	43 30
	G. W. Knight.....	1 lecture law school	124	4 00
	F. A. Ferguson.....	13½ hours brick laying @ 15c.....	125	2 00
	J. T. Mack	Exp. at meetings June 28-29.....	126	21 52
	E. O. Randall	1 lecture, college of law	127	4 00
7	F. M. Senter, P. M	100 2-cent, 200 1-c. post.stamps.....	128	4 00
8	Annis McLaughlin.....	Addressing envelopes.....	129	60
	D. C. Huddleson	49 hrs. wk. catalogues, etc.....	130	7 35
	R. J. Seymour.....	206 " guide, messenger.....	131	25 75
	W. A. Snow.....	30 " record office.....	132	4 50
	Columbus Gas Co.....	Gas	133	83 17
23	I. S. Isabel.....	Brick work, Bio. Hall.....	134	30 00
	Harry Boyd.....	"	135	13 25
	C. R. Smith.....	"	136	7 85
	Al. Smith	"	137	4 50
	Wm. Topland	"	138	14 40
	Jno. McDavis	"	139	16 20
	E. Baker.....	"	140	7 85
	C. Richardson	"	141	7 85
	C. Lentner.....	"	142	8 10
	Tom Hayes	"	143	13 50
	N. Selby	"	144	11 45
	Lewis O'Brien	"	145	4 25
	John Morgan.....	"	146	14 40
	Jas. Bundy.....	"	147	14 10
	J. Alexander	"	148	13 65
	J. T. Davis.....	"	149	4 95
	Robert Nicholson.....	"	150	6 15
	N. Burke	"	151	6 15
	P. Selby	"	152	2 40
	Orvil Barrow.....	"	153	1 60
	Wm. Robinson.....	Stone work, Bio. Hall	154	19 60
	C. A. Bradley	"	155	17 60
	W. A. Schriener.....	"	156	17 60
	M. Miller	"	157	14 40
	A. Reibly.....	"	158	14 40
	A. Deckard	"	159	11 60
	J. Terrell	Labor, Bio. Hall.....	160	11 30
	J. S. Handley.....	"	161	10 80
	T. Cahill.....	"	162	6 75
	Wm. Taylor	"	163	3 35
	P. Knopf	"	164	23 60
	F. A. Ferguson.....	Brick work, Townshend Hall.....	165	21 25

ANNUAL REPORT

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897. July 23	A. Wetzel.....	Brick work Towns. Hall.....	166	\$9 00
	Geo. Steele.....	"	167	12 60
	Ben Slocum.....	"	168	4 40
	W. H. Butler.....	"	169	2 70
	Wm. Blinco.....	"	170	9 00
	Ed. Isabel.....	"	171	4 70
	Tom Vennard.....	Stone work Towns. Hall	172	23 40
	Jas. Cunningham.....	"	173	26 80
	J. Otto.....	"	174	40
	Tom Barton.....	"	175	40
	O. F. Tipton.....	"	176	14 20
	J. B. Tarbett	"	177	8 10
	Geo. Lowey.....	"	178	2 55
	E. Williams.....	"	179	6 90
	H. Cummins.....	"	180	4 95
	E. A. Warley	"	181	12 90
	P. Marrott	"	182	7 75
	Will Hayes.....	"	183	4 80
	Joe Scheiser.....	"	184	8 20
	Geo. O'Harra.....	"	185	1 50
	T. H. Whiteman.....	"	186	5 80
	O. P. Wise.....	Carpenter work Towns. Hall... ..	187	14 40
	D. B. Jacobs.....	"	188	3 20
	W. R. Daily.....	"	189	2 80
	W. H. Noe.....	"	190	2 80
	T. Whiteman	Teaming & haul'g Towns. Hall ..	191	50 00
	J. Wilson.....	"	192	29 85
	P. Ryan.....	"	193	42 80
	Wm. Robinson.....	Labor, Drill Hall	194	13 50
	E. A. Worley.....	"	195	6 85
	F. L. Power.....	"	196	8 00
	Peter Marrott.....	"	197	6 85
	Jas. Terrill.....	"	198	6 85
	Geo. Steele	"	199	6 85
	J. S. Handley.....	"	200	6 85
10	F. M. Senter, P. M.....	100-1c., 100-2c., stamps.....	201	3 00
	H. E. Kennedy, Supt....	Pay-roll, laborers, Towns. Hall ..	202	1,930 50
	H. E. Kennedy, Supt....	" Drill Hall...	203	20 25
	H. E. Kennedy, Supt....	" Bio. Hall....	204	246 40
	H. E. Kennedy, Supt....	Services, 1 mo., per contract...	205	350 00
13	C. L. Wattering.....	Pay work on Towns. hall.....	206	67 77
	G. E. Jaeger.....	Bricklayer, 20 hrs. @ 45c. T. hall	207	9 00
	T. Weiner.....	23 hrs. wk. @ 15c. Towns. Hall ..	208	3 45
15	John Gerling.....	16½ hrs. wk. @ 45c. "	209	7 40
	J. Cullen.....	19½ hrs. wk. @ 15c. "	210	2 90
	J. E. Manning.....	31 " " "	211	4 65
	M. Niskell	31½ " " "	212	4 70
	A. Zink.....	32½ hrs. wk. @ 45c. "	213	14 60
22	Olive B. Jones.....	10 sal. 1st inst yr. end. June '98	214	120 00
23	Z. Heed.....	Time keeper O. S. U. building ..	215	64 65
	Chas. Wachter.....	Hauling gravel Towns. Hall....	216	18 45
	Annie Arnold.....	Serv. O. S. U. bldgs. stenogpr.	217	20 00
24	H. E. Kennedy.....	Pay roll laborers, Towns. Hall ..	218	2,578 65
	H. E. Kennedy, Supt....	" Bio. Hall.....	219	756 35
	H. E. Kennedy, Supt....	" Armory & Gym....	220	1,456 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
July 24	W. Smith	14 hrs. brick laying @ 45c.....	221	\$6 30
	Fred Pursell.....	8 " ".....	222	3 60
26	F. M. Senter, P. M.	1200-2c., 700-1c. stamps.....	223	31 00
	M. Gilmartin.....	14 hrs. bri'k layer helper @ 15c.....	224	2 10
24	James Whissell.....	12 d. foreman Biol. bldg. @ \$5.....	225	60 00
26	James Whissell.....	5 d. foreman arm. & gym. @ \$5.....	226	25 00
27	T. Hodge.....	24 hrs. br'k layer " @ 45c.....	227	10 80
	C. L. Watering.....	Hauling brick.....	228	165 73
	Fred Wassimuth.....	16 hrs. brick laying @ 45c.....	229	7 20
28	D. R. Beynon.....	14 " " 45c.....	230	2 10
	Wm. Robinson.....	34 " " 45c.....	231	5 10
	Alexis Cope.....	Salary for July, 1897.....	232	187 50
29	A. J. Seymour.....	134 hrs. guide work @ 12½c.....	233	16 75
	Wm. Kahler.....	Sharpening tools.....	234	2 60
	W. R. Beattie.....	Salary for July, 1897.	235	54 17
31	J. H. Canfield.....	" " ".....	236	500 00
	Jean Blackford.....	" " ".....	237	50 00
	Edith Cockins.....	" " ".....	238	54 17
	W. C. McCracken.....	" " ".....	239	125 00
	Chas. Low.....	" " ".....	240	54 17
	Wm. Standly.....	" " ".....	241	45 00
	B. Le Bay.....	" " ".....	242	45 00
	G. R. Rose.....	" " ".....	243	65 00
	P. Cottingham.....	" " ".....	244	45 00
	F. B. Brewer.....	" " ".....	245	40 00
	John Adams.....	" " ".....	246	40 00
	John Conrad.....	" " ".....	247	40 00
	Thos. Algeo.....	" " ".....	248	40 00
	Arthur Chantler.....	" " ".....	249	30 00
	Frank Metz.....	Labor Towns. Hall.....	250	32 00
	F. M. Senter, P. M.	Postage acct. O. S. U. Bulletins.	251	10 00
	Abe Harris.....	35 hrs. cutting stone @ 15c.....	252	5 25
30	John Kunz.....	22½ " " 35c.....	253	7 80
	C. Bolt.....	22½ " " 35c.....	254	7 80
	Chris Schafer.....	22½ " " 35c.....	255	7 80
	W. K. Moorehead.....	Salary for July, 1897.....	256	50 00
31	Jas. Kelly.....	" " ".....	257	41 67
	C. B. Hine.....	" " ".....	258	50 00
	Edw. Stalter.....	" " ".....	259	20 00
	B. Seliger.....	22½ hrs. brick laying @ 45c.....	260	10 55
Aug. 2	Mary H. Cope.....	Salary for July, 1897.....	261	40 00
4	W. I. Chamberlain.....	Exp. board meeting Aug. 4, '97.....	262	12 80
	J. McLain Smith.....	" " ".....	263	9 75
	Yost & Packard.....	Services as architects.....	264	500 00
	Peters, Burns & Pretz'g'r	" " Towns. Hall.....	265	1,000 00
	E. B. Kinkad.....	228 spec. lectures law school..	266	285 04
5	E. O. Randall.....	121 " ".....	267	151 25
	D. F. Pugh.....	136 " ".....	268	170 00
	J. H. Collins.....	19 special lectures @ \$1.25.....	269	22 45
	W. H. Page.....	218 " " \$1.25.....	270	272 50
	G. W. Knight.....	82 " " \$1.25.....	271	102 50
	Paul Jones.....	55 " " \$1.25.....	272	68 75
	F. F. D. Alberty.....	34 " " \$1.25.....	273	42 50
	J. A. Thompson.....	Salary for July, 1897.....	274	13 50
	Lucy Allen.....	4 wks. library wk. @ 12½c. hr..	275	24 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Aug. 5	C. U. Telephone Co.....	Telephone rent.....	276	\$56 45
	Mc. Ielland & Co.....	Rubber bands, note book.....	277	2 02
	C. T. Howe.....	Orchestra, commencement.....	278	32 00
	Chittenden Hotel Co.....	Expenses, Dr. Draper.....	279	3 00
	Alexis Cope.....	Exp. to meet'g A. A. L. G. C.		
		July, '97.....	280	56 35
	Thos. F. Hunt.....	" " " " " " " " " " " "	281	52 00
	W. U. Telegraph Co.....	Messenger.....	282	27
	Cherington P. & E. Co..	2 rubber stamps.....	283	50
	Col. Transfer Co.....	Carriage service.....	284	4 00
	Warren Atkinson.....	Extra wk for Pres. as stenog.,	285	5 00
	F. W. Prentiss.....	Salary for July, 1897.....	286	33 33
	Tracy-Wells Co.....	Sponges, hammers, etc.....	287	10 64
	Monypeny Ham. Co.....	Lye.....	288	3 75
	H. Braun, Sons & Co....	10 gal. oil, etc.....	289	3 75
	Blackwood, Green & Co.	Gas stove, etc.....	290	6 60
	Florence D. Cope.....	18 days wk. @ \$1.50.....	291	25 00
	Masury, Young & Co....	1 barrel nodusto.....	292	63 00
	J. R. Spurrier.....	45½ hrs. @ 20c.....	293	9 10
	Violet Zimmerman.....	4 days @ \$1.00.....	294	4 00
	M. C. Zimmerman.....	5½ " \$1.00.....	295	5 50
	Mrs. Handley.....	1½ " \$1.00.....	296	1 50
	Mitchell Adv. Co.....	Time card.....	297	1 00
	R. L. Polk & Co.....	1 directory.....	298	5 00
	Yardley & Harsh.....	100 ft. rubber hose.....	299	13 00
	A. McLaughlin.....	9 hrs. clerk @ 15c.....	300	1 35
	D. C. Huddleson.....	7½ " @ 12½c. wk., Orton Hall..	301	93
	M. Armbruster.....	Serv. commencement day.....	302	3 00
	Penn Fuel Co.....	Lime, cement, etc.....	303	598 76
	C. A. & C. R. R.....	Freight on 6 cars brick.....	304	133 28
	J. Wiggins & Co.....	Printing 200 contracts.....	305	3 00
	Penn Fuel Co.....	Coal.....	306	14 55
	E. A. Cole & Co.....	" " " " " " " " " " " "	307	2 29
	Blackwood, Green & Co.	Nails, rope, hose, etc.....	308	27 38
	Benj Rushmer.....	Blacksmithing, etc.....	309	26 90
	T. J. Godfrey.....	Exp. meet'g Aug. 4-5, 1897.....	310	10 80
	J. C. Porterfield.....	Rent of gun, 2 boxes shells....	311	2 55
	Wm. Burdell, Jr.....	Harness, etc.....	312	9 30
	G. C. Cross Lumber Co.	Lumber.....	313	1 92
	J. Yoakum.....	Grinding corn.....	314	6 00
	H. Cole.....	Thermometers, etc.....	315	7 10
	Nitschke Bros.....	Letter heads, etc.....	316	9 50
	A. W. Livingston's Sons.	Dam., crops by O. S. U. cattle..	317	15 00
	W. H. Page.....	52 lectures @ \$4.00.....	318	208 00
	F. S. Johnston.....	72 hrs. stenog. @ 12½c.....	319	9 00
	H. Haerlein.....	Services as landscape gard'ner	320	51 40
	Blackwood, Green & Co.	1 rake, sickle, etc.....	321	3 40
	J. H. Brown.....	174 hrs. @ 13½c.....	322	23 49
	W. H. Gilmore.....	88 " @ 12½c. on campus ..	323	11 00
	C. K. McClelland.....	22 " " " " " " " " " "	324	2 75
	W. C. Stocks.....	20 " " " " " " " " " "	325	2 50
	W. R. Price.....	219 " " " " " " " " " "	326	27 38
	J. F. Travis.....	20 " " " " " " " " " "	327	2 50
	G. A. Flickinger.....	92 " 15c. " " " " " " " "	328	13 50
	J. C. Britton.....	283 " " " " " " " " " "	329	42 45

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Aug. 5	A. F. Wilcox.....	237 hours @ 15 cts. on campus	330	\$35 55
	G. A. Flickinger.....	55 " " "	331	8 25
	H. H. Loomis.....	50 " @ 12½ " "	332	6 25
	W. R. Price.....	55 " " "	333	6 88
	A. F. Wilcox.....	55 " @ 15 cts.....	334	8 25
	Central Electric Co....	Sockets, switches.....	335	71 42
	Water Department.....	Water meter, etc.....	336	144 70
	B. D. Potts.....	Fittings, pipe.....	337	252 86
6	A. R. Richards.....	55 hours @ 5 cts. on campus..	338	2 75
	S. T. Knight.....	Lab. & mate'ls, tun'l, Hayes H'l	339	643 27
	Marion Peck.....	26 days @ \$1.50.....	340	39 00
	J. R. Spurrier.....	81 hours @ 20 cents.....	341	16 30
	C. H. Woodruff.....	Carp work.....	342	59 54
	Thos. Bonde.....	31½ days @ \$1.50.....	343	47 25
	H. Chantler.....	17 days' work @ \$1.50.....	344	25 50
	J. L. D. Nicols.....	26 days @ \$1.50.....	345	39 00
	Col. Rubber & Beltg. Co.	Pipe, etc.....	346	143 36
	Engelke & Bigelow.....	Freight and cartage.....	347	10 28
	Tallmadge Hardw'e Co.	Hardware.....	348	16 37
	Spahr & Glenn.....	Printing cert. of indebt., etc.	349	48 05
	Kelton & Converse.....	Lumber.....	350	26 78
	Cap. City Mach. Works.	Lock, nuts, etc.....	351	13 21
	Bausch & Lomb Op. Co.	1 microscope.....	352	27 00
	C. O. Paper Co.....	1 ledger, etc.....	353	18 15
	Edna Armstrong.....	149 hrs at @ 15 cts. in bot. lab.	354	22 35
	Freda Detmers.....	103½ " " on herba'm	355	20 70
	W. A. Kellerman.....	Bot. lab. supplies.....	356	13 61
	J. K. Small.....	51 specimens bot. museum.....	357	5 00
	Payne McD. Hdw. Co..	Hardware.....	358	5 71
	Kimball & Mathews.....	Card board, etc.....	359	6 56
	J. Carbutt.....	Photo plates.....	360	2 10
	Kauffman-Lattimer Co..	Chemicals.....	361	19 90
	J. H. Randall.....	6½ hours carp work @ 25 cts.	362	1 63
	C. H. Woodruff.....	31 " " @ 27½ cts.	363	8 61
	Kelton & Converse.....	Lumber.....	364	1 25
	Tallmadge Hdw. Co....	Hardware.....	365	3 04
	Coe & Spencer.....	Drawing table and stool.....	366	8 50
	Buff & Berger.....	1 current meter.....	367	144 50
	F. F. Bonnet.....	1 centennial timer.....	368	6 00
	Morse Machine Co.....	1 B. P. frame.....	369	24 00
	New Col. Bridge Co....	Track for blue pt. frame.....	370	15 00
	H. Cole.....	3 batteries, etc.....	371	19 15
	Weiman Machine Wks.	Castings, tubing, etc.....	372	11 12
	Payne McD. Hdw. Co..	Hardware.....	373	18 11
	W. F. Lavery.....	Paint'g & repair'g Vet Hosp..	374	23 00
	T. J. Dundon & Co.....	Lumber.....	375	2 52
	J. W. Bradford.....	Typewriting 190 pp.....	376	12 00
	Coe & Spencer.....	Lumber.....	377	22 00
	Hann & Adair.....	1 record book, etc.....	378	4 50
	J. B. Allen, Clerk.....	Bal. due cl'k Sup. Ct., law exam	379	39 95
	Spahr & Glenn.....	Printing exam. questions.....	380	8 75
	Columbus Supply Co. .	Fittings.....	381	3 25
	Tallmadge Hardw'e Co.	Hardware.....	382	1 40

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897				
Aug. 6	Kelton & Converse.....	Lumber.....	383	\$6 93
	H. H. Walling.....	Painting Obs. dome, etc.....	384	29 50
	Edw. Orton.....	Specimens, etc., Geo. museum.....	385	22 27
	W. K. Moorehead.....	Purchase of specimens.....	386	50 95
	F. O. Schoedinger.....	Repairing conductors, etc.....	387	3 68
	Blackwood, Green & Co.....	Hardware.....	388	9 09
	Lewis Fink.....	Varnish, labor, etc.....	389	10 42
	Col. Rubber & Beltg. Co.....	Pipe, etc.....	390	18 74
	Col. Supply Co.....	Fittings.....	391	8 02
	Joe Garretson.....	25 days work, @ \$1.50.....	392	37 50
	Col. Supply Co.....	Pipe, etc.....	393	135 62
	Col. Brass Co.....	Lever, etc.....	394	1 97
	Blackwood, Green & Co.....	1 copper condenser.....	395	29 00
	B. D. Potts.....	Fittings.....	396	9 93
	A. Earl.....	Lumber.....	397	10 50
	J. H. Randall.....	47½ hrs. carp. work, @ 25c.....	398	11 87
	Jas. Stainbrook.....	26 days work, @ \$1.50.....	399	39 00
	O. T. Corson.....	Adv. in Ohio Ed. Monthly.....	400	29 00
	Champlin Ptg. Co.....	Ptg. reports, circulars, etc.....	401	107 75
	Toledo High Sch. An.....	Advertising.....	402	5 00
	Hann & Adair.....	1,000 catalogue envelopes.....	403	2 75
	Toledo Commercial.....	Adv. props. for bonds.....	404	13 15
	Hann & Adair.....	Paper and envelopes.....	405	3 05
	O. T. Corson.....	1 page ad. in O. E. Monthly.....	406	22 50
	W. R. Davis.....	Ad. in "Spider Webb".....	407	5 00
	G. H. Durand.....	Ad. in Oberlin Annual.....	408	10 00
	Webb Sta. & Ptg. Co.....	1,000 letter heads.....	409	6 50
	O. S. Journal Co.....	Advertising.....	410	8 00
	Lancaster A. & C. Herald.....	".....	411	10 00
	C. O. Paper Co.....	1 ruled book, etc.....	412	21 95
	Chas. Schaup.....	31 days @ \$2 supt. tunnel.....	413	62 00
	Enquirer Co.....	Adv. proposals.....	414	16 03
	F. O. Schoedinger.....	Galv iron pipes.....	415	150 00
	T. J. Dundon & Co.....	Lumber.....	416	1,427 26
	R. A. McClure.....	Mill work.....	417	500 00
	Fitzpatrick & Hoepfner.....	Plumbing and heating.....	418	100 00
	Col. Brick & Ter. C. Co.....	Brick.....	419	1,067 69
	Buckeye Press Brick Co.....	".....	420	403 52
	Adam Wagner.....	Rent of brick hoist.....	421	46 00
	M. J. Bergin Lumber Co.....	Lumber.....	422	2,000 00
	Saunders & Esswein.....	Plumbing Towns Hall.....	423	900 00
	Void.....	".....	424	0 00
	T. J. Dundon & Co.....	Lumber.....	425	940 62
	Pedrick & Ferris.....	Mortar.....	426	198 11
	Homegartner Sand Co.....	Sand.....	427	230 75
	Schoedinger, Fearn & Co.....	Hardware.....	428	122 04
	Fifth Ave. Coal Co.....	Coal and weighing material.....	429	27 45
	W. U. Telegraph Co.....	Teleg. service.....	430	11 20
	Fultonham Brick Co.....	Brick.....	431	1,343 20
	C., S. & H. Ry. Co.....	Freight.....	432	791 53
	Kilbourne-Jones Co.....	Hardware.....	433	42 67
	Coe & Spencer.....	Lumber.....	434	112 20
	C. U. Telephone Co.....	Telephone service.....	435	16 50
	C., H. V. & T. Ry. Co.....	Freight.....	436	100 62
	T. & O. C. Ry. Co.....	Freight and switching.....	437	7 75

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Aug. 6	B. & O Railway Co.....	Freight.....	438	\$107 18
	C. O. Paper Co.....	Sheathing, etc.....	439	35 52
	Taylor, Mantel & G. Co.	Frames.....	440	22 00
	Acme Paving Co.....	Cement and cinders.....	441	12 90
	C. Durner.....	Sharpening tools.....	442	63 11
	Ruggles-Gale Co.....	Office supplies.....	443	12 15
	C. E. Morris.....	Iron.....	444	51 25
	Col. Sewer Pipe Co.....	Flue linings.....	445	9 15
	Col. Supply Co.....	Supplies.....	446	15 13
	L. Bowen Sons.....	Mortar color.....	447	90 87
	Lawrence Press Co.....	Office supplies.....	448	25 70
	Standard Oil Co.....	Oils.....	449	3 43
	B. D. Potts.....	Pipe.....	450	24 00
	Bldg. Material & Sup. Co	Wall ties.....	451	165 69
	Engelke & Bigelow.....	Freight and cartage.....	452	100 43
	Climax Stone Co.....	Stone.....	453	68 60
	M. D. Grary.....	Grindstone.....	454	2 50
	F. J. Kistler.....	Coal.....	455	14 78
	C., C., C & St. L. Ry. Co	Freight and switching.....	456	56 54
	Taylor-Beall Co.....	Stone.....	457	100 00
	S. T. Knight.....	Sewerage, Biol. building.....	458	45 00
7	H. E. Kennedy Supt.....	Pay roll, laborers Biol. Bldg...	459	749 25
	H. E. Kennedy Supt.....	" Arm & Gym.	460	1,798 45
	H. E. Kennedy Supt.....	" Towns. Hall.	461	1,917 40
	John T. Mack.....	Exp. mt'gs b'd July 27, A. 4, '97	462	19 40
9	Wells-Fargo Co.....	Express charges.....	463	60
10	H. E. Kennedy.....	Serv. Supt. const. & expenses..	464	376 47
11	C. L. Wattering.....	Hauling brick.....	465	113 45
12	F. W. Prentiss, Treas...	B. E. order Ca. F. Kahlbaum, marks 29, 45.....	466	7 14
	Col. Brick & Terra C. Co	Press brick, Towns. Hall.....	467	490 00
13	Col. Gas Co.....	Gas for July, 1897.....	468	50 31
	Am. Express Co.....	Express charges.....	469	65
14	Thos Slone.....	72½ hrs. b. layer's help'r @ 15c.	470	10 85
17	Frank Paterson.....	20 hrs. bricklaying @ 45c.....	471	9 00
16	Adams Express Co.....	Express charges.....	472	30
17	Geo. Atherton.....	28 hrs. bricklaying @ 45c.....	473	12 60
18	Adams Express Co.....	Express charges.....	474	25
22	Oakland Press Bk. Co..	Brick.....	475	89 35
21	H. E. Kennedy, Supt.....	Pay roll, laborers A'm & Gym	476	2,290 65
	H. E. Kennedy, Supt.....	" Biol. Bldg.....	477	1,129 20
	H. E. Kennedy, Supt.....	" Towns. Hall.	478	1,813 40
	J. A. Thompson.....	Work in greenhouse.....	479	28 75
23	Col. St. Ry. Co.....	5 packages car tickets.....	480	5 00
	E. T. Garner.....	16 hrs. bricklaying @ 45c.....	481	7 20
	Chas. Paulin.....	" ".....	482	7 20
24	C. Farley.....	18 hrs. carp. work @ 25c.....	483	4 50
	C. L. Wattering.....	Hauling brick.....	484	122 56
25	E. W. Tucker.....	16 hrs. bricklaying @ 45c.....	485	7 20
	U. S. Express Co.....	Express on app.....	486	2 80
26	Jas. H. Canfield.....	Salary for August, 1897.....	487	500 00
27	Arthur Chantler.....	Sal. as Jan. Orton hall & lib'r'y	488	45 00
26	Alexis Cope.....	Salary for August, 1897.....	489	187 50
	W. C. McCracken.....	" ".....	490	125 00
	Jean Blackford.....	" ".....	491	50 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1896.				
Aug. 26	Edith Cockins.....	Salary for Aug., 1897.....	492	\$54 17
	W. K. Moorehead.....	" " ".....	493	50 00
	C. B. Hine.....	" " ".....	494	45 00
	Chas. Low.....	" " ".....	495	54 17
	Wm. Standley.....	" " ".....	496	45 00
	Benj. LeBay.....	" " ".....	497	45 00
	G. R. Rose.....	" " ".....	498	65 00
	P. Cottingham.....	" " ".....	499	45 83
	Mary H. L. Cope.....	" " ".....	500	40 00
	Jas. Kelly.....	" " ".....	501	41 67
	Fred Brewer.....	" " ".....	502	40 00
	John Adams.....	" " ".....	503	40 00
	John Conrad.....	" " ".....	504	40 00
	Edw. Stalter.....	" " ".....	505	20 00
	J. A. Thompson.....	" " ".....	506	13 50
	W. R. Beattie.....	" " ".....	507	54 17
	Wm. Stock.....	30½ hrs. bricklaying @ 45c.....	508	13 70
	Ed. Voeglin.....	16 " ".....	509	7 20
	Henry White.....	43 hrs. bricklaying @ 15c.....	510	6 45
27	U. S. Express Co.....	Express charges.....	511	50
	John Griffin.....	9 hours stone work @ 35c.....	512	3 15
28	H. Blaney.....	53 hours laying brick @ 15c.....	513	7 95
	Wm. Whitestone.....	Salary for Aug., 1897.....	514	45 00
30	Robt. Amker.....	26½ hrs. bricklaying @ 15c.....	515	3 95
	Louis Dean.....	27 hours labor @ 15c.....	516	4 05
	E. West.....	40 " ".....	517	6 00
31	J. L. Chriswell.....	74½ " ".....	518	11 15
	U. S. Express Co.....	Express charges.....	519	25
	Herald Ptg. Co.....	Report blanks.....	520	7 25
	W. Annat.....	38½ yards muslin @ 6½c.....	521	2 60
	Ohio. Agr. Exper. Sta.....	Envelopes, etc.....	522	1 73
	Engelke & Bigelow.....	Freight and cartage.....	523	13 45
	Walworth Run Fdy. Co.....	Railroad cars and track.....	524	121 25
	Arthur Richards.....	178 hours campus work @ 5c.....	525	8 90
	H. H. Loomis.....	207 hrs. campus work @ 12½c.....	526	25 88
	H. S. King.....	70 " ".....	527	8 75
	J. C. Britton.....	225 hrs. campus work @ 15c.....	528	33 75
	Wm. Gilmore.....	104 hrs. campus work @ 12½c.....	529	13 00
	J. A. Thompson.....	62 " ".....	530	7 75
	S. Teter.....	75 " ".....	531	9 38
	H. Huff.....	70 " ".....	532	8 75
	C. K. McClelland.....	44 " ".....	533	5 50
	J. H. Brown.....	184 hrs. campus work @ 13½c.....	534	24 84
	Geo. Wooton.....	14 hours labor @ 15c.....	535	2 10
	W. M. Taylor.....	13 " ".....	536	1 95
	T. J. Godfrey.....	Exp. at meet'g of Com. 8 31-'97.....	537	5 15
	W. R. Price.....	64 hrs. campus work @ 12½c.....	538	8 00
	A. F. Wilcox.....	141 hours campus work @ 15c.....	539	21 15
	C. W. Clark & Co.....	200 oak stakes.....	540	6 00
	G. A. Flickinger.....	208 hours campus work @ 15c.....	541	31 20
	Blackwood, Green & Co.....	1 copper box, etc.....	542	7 50
	D'Este & Seeley Co.....	Balanced steam trap.....	543	28 00
	Kilbourne-Jones Co.....	5 dozen cabinet clamps.....	544	8 75
	Thos. Boude.....	29 days @ \$1.50.....	545	43 50
	Jas. Stainbrook.....	26 " ".....	546	39 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Aug. 31	M. Peck	21½ days @ \$1.50.....	547	\$32 25
	Westinghouse Elec. Co..	2 100-Amp. dynamo switches...	548	36 00
	W. K. Moorehead	Specimens, etc.....	549	100 00
	Schoedinger, Fearn & Co	Screws	550	1 03
	Stronberg C. Telep. Co..	Exp. charges and boxing.....	551	1 85
	Kelton & Converse	Lumber	552	4 40
	C. H. Woodruff	13 hrs carp. work @ 27½c.....	553	3 61
	O. A. Davis	3½ hours at elect. lab. @ 17½c..	554	58
	J. H. Randall	9 hours carp. wrk @ 25c.....	555	2 25
	W. E. Chappell	13 hours elect. lab wrk @ 15c..	556	1 95
	S. Obermayer & Co	2 steel wire brushes.....	557	1 70
	Tallmadge Hdw. Co.....	Hardware.....	558	10 45
	P. Hayden Foundry.....	1 pig copper 26 lbs.....	559	3 90
	E. A. Kinsey Co.....	2 sets jaws.....	560	7 20
	Nitschke Bros	1500 letter heads	561	4 50
	Cap. City Machine Wks.	23 hours work on wheel, etc....	562	9 88
	Columbus Brass Co.....	Brush, castings, etc	563	1 55
	Ruggles-Gale Co	1 record, etc.....	564	5 30
	C. E. Nicholas	Zinc, etc.....	565	8 44
	G. E. Stechert	1 book	566	6 25
	Central Electric Co	28 coppers.....	567	12 19
Sept. 1	F. W. Prentiss	Salary for August, 1897.....	568	33 33
	Green, Joyce & Co.....	Towels	569	15 00
	Kauffman-Lattimer Co..	Drugs and chemicals.....	570	63 45
	W. J. Corns	Painting Botan. Hall.....	571	75 00
	H. Braun Sons & Co	Oil, etc	572	6 82
	Lewis Fink	Papering	573	47 10
	Kelton & Converse.....	Lumber	574	9 53
	Warren Atherson	4 d. paint'g Pres. barn @ \$1.50	575	6 00
	Blackwood, Green & Co.	Hardware.....	576	134 31
	J. H. Randall	Carpenter work	577	34 50
	C. H. Woodruff	"	578	57 76
	A. F. Wilcox.....	83 hours work @ 15c.....	579	12 45
	Chas. Dorsey.....	102 " " "	580	15 30
	A. E. Loeb	28 " " "	581	4 20
	J. L. D. Nichols	4½ days @ \$1.50	582	6 75
	A. F. Fenstermaker	Papering phys. laboratory.....	583	24 00
	H. L. King.....	43 hours painting @ 15c	584	6 75
	C. J. Sly.....	Cleaning 3 vaults	585	34 00
	D. C. Huddleson.....	104 hours guide work @ 12½c..	586	13 00
	R. J. Seymour	58 " " "	587	7 25
	Quinins & Ridenour.....	2 files	588	35
	Columbus Supply Co.....	Pipe and fittings	589	188 75
	J. M. & W. Westwater...	Fixtures.....	590	19 00
	McAllister, Mohler & Co	Office chairs.....	591	11 50
	Hann & Adair	Office supplies.....	592	2 58
	McCielland & Co.....	Paper and envelopes	593	1 50
	C. U. Telephone Co	Telephone rent	594	4 45
	Hasbrook & Byers.....	1 jug and glass	595	35
	Tallmadge Hdw. Co.....	Shears and knife.....	596	2 50
	Chering'n Ptg & Eng. Co	1 pen holder	597	20
	Am. Dist. Teleg. Co.....	Rent of signal boxes.....	598	37 55
	Columbus Mdse. Co.....	Twine, etc.....	599	64
	A. H. Smythe	Cleaning typewriter.....	600	1 00
	W. U. Telegraph Co.....	Messages	601	2 56

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897. Sept. 1	P. F. Yoerger.....	Lettering and sign	602	\$3 75
	I. H. Miller.....	Rent of office, July, 1897.....	603	20 00
	W. C. Willard.....	Clerical asst. secy. office.....	604	24 50
	D. McAllister.....	10 bushels seed.....	605	14 00
	J. Wiesheimer	Meal.....	606	8 60
	H. A. Coe.....	Thresh'g 591 bu. wheat @ 3½c.	607	20 70
	Sterling Mfg. Co	1 apron for foundry, etc.....	608	9 84
	Geiser Mfg. Co.....	1 gear arm	609	2 75
	Landon Ptg. & Pub. Co.	3,000 reports, etc	610	6 10
	Flint & Walling Mfg. Co.	1 spray pump	611	6 50
	F. S. Johnston.....	118 hours work @ 12½c	612	14 75
	Frank Miller.....	47½ hours labor @ 15c	613	7 10
	Nitschke Bros.....	Folders, ink, etc.....	614	13 75
	Hann & Adair.....	Office sundries	615	15 60
	Werner Co	100 litho. certificates of indbt.	616	75 00
	Agricultural S. Pub. Co.	Advertising '97-'98	617	80 00
	Spahr & Glenn.....	150 copies newspaper slips.....	618	2 25
	Windsor & K. Pub. Co.	½ page adv. Aug. 1, 1897.....	619	10 00
	Leader Printing Co.....	Advertising proposals	620	12 90
	Webb Sta. & Ptg. Co.....	Stationery	621	9 10
	Lawrence Pub. Co.....	Advertising	622	70 00
	Farm. Home Pub. Co.....	"	623	28 00
	Nat'l Stockman & Far..	56-line ad	624	67 20
	Mast Crowell & K.....	Advertising.....	625	35 00
	Am. Grange Bulletin	"	626	16 80
	Harper Ill. Syndicate	Cut of Towns. Hall.....	627	3 75
	Orange-Judd Co	Advertising	628	3 50
	Tallmadge Hdw. Co	Hardware	629	9 91
	Col. Supply Co	Pipe and fittings.....	630	28 83
	S. T. Knight	360 feet sewer @ 20c.....	631	72 00
	Kelton & Converse	Lumber.....	632	30 22
	New Col. Bridge Co.....	6 col. erected as per contract..	633	176 50
	Col. Rubber & Beltg. Co.	Pipe, etc.....	634	158 32
	Engelke & Bigelow.....	Freight and cartage.. ..	635	11 20
	S. T. Knight	Final est. tunnel	636	570 56
	H. Chantler	22 days @ \$1.50	637	33 00
	W. E. Chappell	34 hrs. elec. plant wk. @ 15c..	638	5 10
	J. R. Spurrier.....	91½ " 20c.....	639	18 80
	A. E. Loeb	35 " 17½c.	640	6 13
	A. O. Davis.....	43 hrs. @ 17½c. " 7 hrs @ 15c..	641	8 57
	Bissell, Dodge & Erner Co	Conduits, rosettes, etc.....	642	32 80
	Post-Glover Elec. Co	Brackets, wire, etc.....	643	215 76
	Kauffman-Lattimer Co..	Muriatic acid	644	3 48
	Adam Wagner.....	Brick hoist and engine.....	645	45 55
	Am. En. Brick & Tile Co.	Enamel brick	646	1,178 26
	B. & O. Ry. Co.....	Freight.....	647	166 06
	Peters, Burns & Pretz'ger	Plans	648	20 00
	N. W. Terra Cotta Co....	Terra cotta.....	649	969 20
	S. T. Knight	Sewer.....	650	97 50
	N. Lex. Press Brick Co.	Brick	651	183 72
	T. & O. C. Ry. Co.....	Freight and switching.....	652	34 53
	J. F. Byers Mach. Co.....	Grates	653	2 50
	Redett & Sons	Brick	654	187 30
	Champion Iron Co.....	Iron	655	500 00
	Standard Oil Co.....	Oil	656	1 05

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897				
Sept. 1	C. A. & C. Ry Co.....	Freight.....	657	\$251 89
	Warthorst & Co.....	Brick.....	658	898 53
	Buc-eye Press Br. Co....	".....	659	509 30
	Wm. Caldwell.....	Lumber.....	660	373 48
	Col. Supply Co.....	Sundries.....	661	1 05
	C. U. Telephone Co.....	Toll.....	662	75
	S. T. Knight.....	Sewerage.....	663	122 85
	L. Schreiber Sons. Co....	Iron.....	664	500 00
	Fish Stone Co.....	Coping.....	665	56 29
	Yost & Packard.....	Manilla rope.....	666	35
	U. S. Express Co.....	Express charges.....	667	1 90
	Col. Brick & Terra C. Co	Brick.....	668	473 95
	Penna. Fuel Co.....	Coal, etc.....	669	86 67
2	J. W. Coulson & Co.....	Painting and glazing.....	670	200 00
	F. Ward.....	Weighing sand and lime.....	671	12 00
	Rugges-Gale Co.....	Office supplies.....	672	50
	Schoedinger Fearn & Co	Hardware.....	673	7 28
	Engelke & Bigelow.....	Freight and cartage.....	674	822 70
	Taylor Mantel & G. Co	Tile floors and mill work.....	675	1,200 00
	C. S. & H. Ry. Co.....	Freight.....	676	649 79
	T. J. Dundon & Co.....	Lumber.....	677	866 13
	Climax Stone Co.....	Stone.....	678	709 21
	C. E. Morris & Co.....	Iron.....	679	30 10
	C. C. C. & St. L. Ry. Co	Freight and switching.....	680	8 00
	White & Pixley.....	Private telephone contract.....	681	25 00
	C. Durner.....	Sharpening tools.....	682	147 97
	Lawrence Press Co.....	Office supplies.....	683	1 85
	C. O. Paper Co.....	Roofing, sheathing, etc.....	684	151 70
	C. H. V. & T. Ry. Co....	Freight.....	685	79 41
	Pedrick & Ferris.....	Mortar.....	686	249 04
	Fultonham Brick Co.....	Brick.....	687	481 07
	Adams Express Co.....	Express charges.....	688	50
	Taylor, Beall & Co.....	Stone.....	689	1,209 83
4	U. S. Express Co.....	Exp. charges.....	690	90
	Adams Express Co.....	".....	691	1 25
	H. E. Kennedy, Supt.....	Pay roll laborers, armory.....	692	2,960 60
	H. E. Kennedy, Supt.....	" Bio. bldg.....	693	1,660 30
	H. E. Kennedy, Supt.....	" Towns. Hall.....	694	1,710 00
	Joe Garrettson.....	21½ d. plumber's helper @ \$1.50.....	695	32 25
	C. B. Hine.....	Bal. salary for August, 1897.....	696	5 00
6	Am. Exp. Co.....	Express charges.....	697	1 80
7	J. C. Probasco.....	16 hrs. brick laying @ 45c.....	698	7 20
8	Col. Gas Co.....	Gas for August, 1897.....	699	50 62
	C. L. Wattering.....	Hauling brick.....	700	170 66
9	Adams Express Co.....	Exp. charges, trap, Boston.....	701	9 00
	S. E. Davis.....	39 hours @ 15c brick laying.....	702	5 85
10	W. I. Chamberlain.....	Exp. meeting Oct. 9, 1897.....	703	12 10
	J. McL. Smith.....	".....	704	5 00
	T. J. Godfrey.....	".....	705	8 50
	H. E. Kennedy.....	Salary Supt. of const. to Sept. 10, 1897 and expenses.....	706	370 20
	F. Charles.....	Hauling.....	707	1 50
11	A. F. Fenstermaker.....	Dressing desk in Lab.....	708	2 40
	W. U. Telegraph Co.....	Messages.....	709	2 71
	C. T. Herbert.....	30 hours lib. work @ 12½c.....	710	3 75

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897				
Sept. 11	J. A. Thompson.....	64 hours lib. wrk. @ 12½c.....	711	8 00
	Wm. Manning.....	46 hours labor at 15c.....	712	6 90
	C. W. Waid.....	36 hours jan. wrk. lib. @ 12½c.....	713	4 50
	Lucy Allen.....	44 hours Lib. work @ 12½c.....	714	5 50
	G. E. Stechert.....	Books.....	715	37 46
	Taylor-Austin Co.....	".....	716	9 12
	D. Appleton.....	".....	717	5 00
	W. A. Kellerman.....	".....	718	16 00
	M. J. Bergin Lumb. Co..	Lumber.....	719	435 90
	Seraphim Bindery.....	Book binding.....	720	50 55
	J. H. Randall.....	23 hours carp. work, @ 25c.....	721	5 75
	C. H. Woodruff.....	22 " " 27 7-9c.....	722	6 11
	C. E. Schaup.....	17 days work, at \$2.....	723	34 00
	F. M. Senter, P. M.....	500 lc. stamps.....	724	5 00
14	J. T. Mack.....	Exp. attg. meetg. Sep. 10, '97.....	725	9 40
	E. N. Tucker.....	39½ hrs. brick laying, @ 45c.....	726	17 75
	E. Jaeger.....	17 " ".....	727	7 65
	A. D. Bleininger.....	On act. Natl. Brick Mfg. Schl.....	728	5 00
	Frank McDonald.....	51 hours brick mason, @ 45c.....	729	22 95
	A. Leibfarth.....	31 hours stone cutter.....	730	12 40
15	J. Mosher.....	65½ hours bricklaying, @ 45c.....	731	29 45
	V. Ritchey.....	67½ " ".....	732	30 35
	Wm. Wyatt.....	45 hours labor, @ 15c.....	733	6 75
	Harry Vogle.....	59½ hours bricklaying, @ 45c.....	734	26 75
	E. Syker.....	81 hours labor, @ 15c.....	735	12 15
16	Chas. Joyce.....	86 " ".....	736	12 90
16	A. Wagner.....	80 hours bricklayer, @ 45c.....	737	36 00
	C. Kulp.....	65 " ".....	738	29 25
	E. L. Schultz.....	80 " ".....	739	36 00
17	J. T. Mack.....	Exp. at meetg. Aug. 17, '97.....	740	9 73
	H. A. Weber.....	1-10 sal. Sept. inst. 1897.....	741	225 00
17	Murphy Iron Works.....	½ Con. price furnace.....	742	600 00
	H. E. Kennedy, Supt...	Pay roll, Drill Hall.....	743	3,992 75
	H. E. Kennedy, Supt.....	" Biol. building.....	744	1,724 70
	H. E. Kennedy, Supt...	" Towns. Hall.....	745	987 00
20	Geo. Dolby.....	20 hours stonecutting, @ 15c.....	746	3 00
21	G. Russel.....	" ".....	747	1 50
	Clarence Miller.....	38½ " " @ 15c.....	748	5 75
	Wm. Becker.....	24 hours bricklaying, @ 45c.....	749	10 80
	C. R. Smith.....	13 " ".....	750	5 85
	M. John.....	28½ hrs. wrk. Biol. bldg. @ 15c.....	751	4 25
	Sam Clark.....	Carp. work.....	752	3 45
23	P. F. Hunter.....	26 hours bricklaying, @ 45c.....	753	11 70
18	Thos. Algeo.....	16 days work, @ \$1.50.....	754	24 00
25	A. M. Bleile.....	1-10 sal. Sept. inst. 1897.....	755	225 00
	W. A. Kellerman.....	".....	756	225 00
	C. N. Brown.....	".....	757	225 00
	A. C. Barrows.....	".....	758	225 00
	Edw. Orton.....	".....	759	225 00
	E. A. Eggers.....	".....	760	225 00
	J. R. Smith.....	".....	761	225 00
23	Wm. Wagner.....	46 hours bricklaying, @ 45c.....	762	20 70

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897. Sept. 25	G. W. Knight	$\frac{1}{10}$ salary, Sept. inst., 1897.....	763	\$225 00
	W. R. Lazenby.....	" " ".....	764	225 00
	S. C. Derby.....	" " ".....	765	225 00
	R. D. Bohannon	" " ".....	766	225 00
	W. T. Magruder.....	" " ".....	767	225 00
	J. P. Gordy.....	" " ".....	768	225 00
	W. H. Scott.....	" " ".....	769	225 00
	B. F. Thomas.....	" " ".....	770	225 00
	J. V. Denney	" " ".....	771	225 00
	B. L. Bowen.....	" " ".....	772	225 00
	D. S. Kellicott.....	" " ".....	773	225 00
	A. L. Williston.....	" " ".....	774	225 00
	N. W. Lord.....	" " ".....	775	200 00
	G. B. Kauffman.....	" " ".....	776	200 00
	Wm. McPherson.....	" " ".....	777	200 00
	F. A. Ray	" " ".....	778	200 00
	Edw. Orton, Jr	" " ".....	779	180 00
	J. N. Bradford.....	" " ".....	780	180 00
	G. W. McCoard.....	" " ".....	781	160 00
	H. C. Lord	" " ".....	782	150 00
	E. A. Hitchcock.....	" " ".....	783	150 00
	W. D. Gibbs.....	" " ".....	784	140 00
	P. G. Bowman.....	" " ".....	785	140 00
	F. C. Caldwell.....	" " ".....	786	140 00
	D. S. White.....	" " ".....	787	140 00
	S. A. Norton	" " ".....	788	120 00
	R. I. Fulton.....	" " ".....	789	120 00
	Olive Jones	$\frac{1}{10}$ salary, Oct. inst., 1897.....	790	120 00
	J. E. Boyd.....	$\frac{1}{10}$ salary, Sept. inst., 1897.....	791	110 00
	C. E. Sherman.....	" " ".....	792	100 00
	T. E. French.....	" " ".....	793	100 00
	C. W. Mesloh.....	" " ".....	794	100 00
	F. C. Clark.....	" " ".....	795	100 00
	W. H. Siebert.....	" " ".....	796	100 00
	A. W. Hodgman.....	" " ".....	797	100 00
	J. R. D. Taylor.....	" " ".....	798	100 00
	M. Dresback	" " ".....	799	30 00
	J. A. Bownocker.....	" " ".....	800	90 00
	W. A. Knight	" " ".....	801	90 00
	C. W. Weick.....	" " ".....	802	90 00
	C. C. Sleffel.....	" " ".....	803	90 00
	C. W. Foulk.....	" " ".....	804	85 00
	C. L. Arnold	" " ".....	805	85 00
	K. D. Swartzel.....	" " ".....	806	85 00
	C. A. Dye	" " ".....	807	85 00
	J. S. Hine	" " ".....	808	85 00
	J. H. Schaffner.....	" " ".....	809	80 00
	Clark Wissler	" " ".....	810	80 00
	W. L. Graves.....	" " ".....	811	80 00
	C. A. Bruce.....	" " ".....	812	80 00
	C. W. Burkett	" " ".....	813	75 00
	F. Haas.....	" " ".....	814	70 00
	A. E. Vinson.....	" " ".....	815	65 00
	F. L. Landacre.....	" " ".....	816	65 00
23	W. B. Underwood.....	50 hours labor @ 17 $\frac{1}{2}$ c.....	817	8 75

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Sept. 25	E. E. Harrold.....	$\frac{1}{10}$ salary Sept. inst., 1897.....	871	\$70 00
	Chas. Stainbrook.....	Enamel brick work.....	872	100 00
	E. N. Van Harlingen.....	$\frac{1}{10}$ salary Sept. inst., 1897.....	873	60 00
	H. McCullough.....	55 hrs. stone cutter @ 40c.....	874	22 00
	J. A. Frick.....	63 $\frac{1}{2}$ " ".....	875	25 40
26	Ed. Johnston.....	27 hrs. wk. on bldgs. @ 15c....	876	6 65
	J. H. Brown.....	Services as watchman Sept. 6 to 30.....	877	37 50
	Orris Baker.....	16 hrs. bricklayer @ 45c.....	878	7 20
	Mike Masterson.....	18 hrs. work helping brick- layer @ 15c.....	879	2 70
18	W. Kneis.....	56 $\frac{1}{2}$ hrs. bricklaying @ 45c....	880	25 40
29	J. H. King.....	50 $\frac{1}{2}$ " " 15c.....	881	7 55
	Jos. Mosher.....	19 $\frac{3}{4}$ hrs. bricklayer @ 45c....	882	8 90
	Harry McDowell.....	59 $\frac{1}{2}$ " ".....	883	26 75
	Wm. Sugreve.....	24 " ".....	884	10 80
30	Dave Giroux.....	73 $\frac{1}{2}$ hrs. bricklaying @ 45c....	885	33 05
	Henry Williams.....	53 " labor @ 15c.....	886	7 95
	Maggie Zimmerman.....	Services as maid dept. D. Sci.....	887	3 00
	Tom Hodge.....	57 $\frac{1}{2}$ hrs. bricklaying @ 45c....	888	25 85
Oct. 2	H. E. Kennedy, Supt....	Pay roll laborers Towns Hall..	889	1,428 65
	H. E. Kennedy, Supt....	" Drill Hall.....	890	3,529 00
	H. E. Kennedy, Supt....	" Biol. Hall.....	891	1,516 70
	F. W. Prentiss.....	Salary for Sept., 1897.....	892	33 33
	A V. Bleininger.....	Account Scholarship in Cera- mics.....	893	20 00
5	John Schumm.....	16 hrs. bricklaying @ 45c....	894	7 20
	Chas. Paxton.....	27 " 15c.....	895	4 05
	Col. Supply Co.....	Pipe and fittings.....	896	13 76
7	R. W. Bock.....	12 board signs.....	897	12 00
	Blackwood, Green & Co.	1 dozen shovels.....	898	7 00
	John Cain.....	10 hrs. campus work @ 12 $\frac{1}{2}$ c..	899	1 25
	E. E. Fisher.....	10 " ".....	900	1 25
	A. McClelland.....	15 " ".....	901	1 87
	F. C. Kettler.....	10 " ".....	902	1 25
	T. W. Ditto.....	10 " ".....	903	1 25
	M. M. Gladding.....	15 " ".....	904	1 88
	F. S. Aten.....	25 " ".....	905	3 13
	E. S. Ream.....	35 " ".....	906	4 37
	R. S. Peters.....	10 " ".....	907	1 25
	Walter Marion.....	15 " ".....	908	1 87
	W. Gilmore.....	15 " ".....	909	1 87
	R. E. McIntosh.....	30 " ".....	910	3 75
	M. J. Harris.....	19 $\frac{1}{2}$ " ".....	911	2 47
	C. H. Clevenger.....	25 " ".....	912	3 13
	W. D. Nichols.....	18 " ".....	913	2 25
	F. Rubins.....	10 " ".....	914	1 25
	H. Huff.....	240 " ".....	915	30 00
	W. W. Wilken.....	144 " ".....	916	18 00
	J. H. Brown.....	11 " ".....	917	1 49
	J. A. Thompson.....	245 $\frac{1}{2}$ " ".....	918	30 70
	A. Richards.....	169 " 5c.....	919	8 45
	J. C. Britton.....	203 " 15c.....	920	30 45
	H. H. Loomis.....	175 $\frac{3}{4}$ " 12 $\frac{1}{2}$ c....	921	21 97

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897. Oct. 7	S. Teter.....	200 hrs. camp work @ 12½.....	922	\$25 00
	A. F. Wilcox.....	255 " " 15.....	923	38 25
	G. A. Flickinger.....	41½ " " 12½.....	924	5 19
	C. C. Hayden.....	47½ " " ".....	925	5 97
	B. C. Sanders.....	123½ " " ".....	926	15 44
	C. K. McClelland.....	18½ " " ".....	927	2 31
	B. M. Pierce.....	70 " " ".....	928	8 75
	H. J. Hammond.....	85 " " ".....	929	10 63
	W. L. Kelly.....	80½ " " ".....	930	10 06
	J. G. Ridinger.....	110 " " ".....	931	13 75
	A. F. Courade.....	88 " " ".....	932	11 00
	W. H. Gilmore.....	105 " " ".....	933	13 12
	R. E. Whiting.....	24 " " ".....	934	3 00
	B. W. Hershey.....	45 " " ".....	935	5 62
	H. L. Belden.....	52½ " " ".....	936	6 59
	J. C. Perry.....	58 " " ".....	937	7 25
	J. S. Parsons.....	28 " " ".....	938	3 50
	C. W. Breese.....	19 " " ".....	939	2 37
	E. C. Cotton.....	45 " " ".....	940	5 63
	Jay Palmer.....	61 " " ".....	941	7 63
	E. A. Falknor.....	33½ " " ".....	942	4 15
	F. J. Tyler.....	40½ " " ".....	943	5 06
	C. Thornburg.....	74 " " ".....	944	9 25
	T. W. Brinker.....	20 " " ".....	945	2 50
	B. L. Gearing.....	9 " " ".....	946	1 13
	C. E. McCloy.....	Repairs on screw conveyor.....	947	50 00
	Tallmadge H'dware Co.	Hardware.....	948	27 04
	Blackwood, Green & Co.	Tin, galv. iron, etc.....	949	23 43
	Wm Cannon.....	21 hours brick laying @ 45c... ..	950	13 95
	Frank Rhoads.....	19 " " ".....	951	8 55
	Wassall Fire Clay Co....	Paving brick.....	952	30 00
	A. F. Wilcox.....	25 hrs. wk. @ 15c. campus.....	953	3 75
	S. Teter.....	30 " " 12½c. ".....	954	3 75
	Hann & Adair.....	Paper, placards, etc.....	955	2 30
	Blackwood, Green & Co.	Oils, etc.....	956	30 31
	Francis Harris.....	Papering.....	957	13 61
	Babcock & Wilcox Co....	Expander, etc.....	958	49 00
	Col. Brass Co.....	Motor.....	959	31 00
	Acme Paving Co.....	Sand, etc.....	960	6 95
	Payne-McDonald Hd. Co.	Oil, etc.....	961	44 37
	J. H. Randall.....	Carpenter work.....	962	31 75
	Stanley Elec. Mfg. Co....	2 static ground detectors.....	963	60 00
	J. J. Gheen.....	Plastering, kalsomining.....	964	275 70
	Borger Bros. & Co.....	Pipe, labor, etc.....	965	28 71
	Stitt, Price & Co.....	Cement and lime.....	966	8 90
	Blackwood, Green & Co.	Repairs on barn.....	967	14 80
	S. T. Hallsman.....	Painting farm house.....	968	60 32
	G. D. Cross Lumber Co....	Lumber.....	969	25 62
	B. H. Barton.....	42 hrs. carpenter wk. @ 25c... ..	970	10 50
	C. H. Woodruff.....	Carpenter work.....	971	38 38
	J. C. Tyler.....	Welding chains.....	972	40
	Am. Dis. Teleg. Co.....	Messenger service.....	973	1 75
	J. A. Thompson.....	20 hrs. wk. in conservatory... ..	974	2 50
	Webb Sta and Ptg. Co....	Stationery.....	975	17 65
	McClelland & Co.....	Pens, paper, etc.....	976	4 55

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Oct. 7	C. U. Telephone Co.....	Telephone service.....	977	\$81 34
	H. Brown Sons & Co.....	Oils.....	978	5 20
	D. C. Beggs Co.....	24 shades, hung.....	979	24 00
	Annis McLaughlin.....	66 hrs. wk. in executive office.....	980	9 90
	R. J. Seymour.....	163 hrs. as guide, etc.....	981	20 37
	F. R. West.....	35 " " @ 12½c.....	982	4 37
	S. Ramsey.....	Laundering towels.....	983	84
	F. A. Fish.....	9 hours work @ 15c.....	984	1 35
	B. H. Flynn.....	25 " " ".....	985	3 75
	W. U. Telegraph Co.....	Messages.....	986	1 81
	Am. Dist. Telegraph Co.....	Rent of five signal boxes.....	987	18 00
	Carter's Ink Co.....	Typewriters, ribbons, etc.....	988	2 50
	Cher'ton Ptg. & Eng. Co.....	1 rubber stamp.....	989	50
	A. H. Smythe.....	½ dozen files.....	990	42
	C. O. Paper Co.....	Paper, etc.....	991	7 30
	Maggie Zimmerman.....	Service in Dep. Dom. Science, Sept. 30 to Oct. 7, 1897.....	992	3 00
	E. R. Eaton, Agent.....	Elevator.....	993	1,025 00
	H. Cole.....	2 boxes thumb tacks.....	994	1 10
	Schroth & Potter.....	Shades.....	995	28 50
	W. H. Anderson & Co.....	1 set statutes.....	996	15 00
	Am. Dis. Telegraph Co.....	Rent 7 fire alarm boxes.....	997	28 00
	B. F. Thomas.....	Money paid for 1 induction coil.....	998	142 15
	Chic. Lab. Sup. & Scale Co.....	Balances, weights, etc.....	999	102 10
	W. H. Anderson & Co.....	5 Bates' statutes.....	1000	75 00
	Z. L. White & Co.....	Shades.....	1001	11 40
	H. Judd.....	11 hrs. wk. on tools @ 25c.....	1002	2 75
	H. Cole.....	1 roll blue print paper.....	1003	1 00
	Kelton & Converse.....	Lumber.....	1004	233 29
	E. E. Graham.....	7 hours work @ 15c.....	1005	1 05
	J. H. Lesh.....	30 hours work @ 15c.....	1006	4 50
	T. J. Godfrey.....	Expense at meeting October 6, 7, 1897.....	1007	11 00
	Wm. Erdman.....	47 hours work on carpenter benches @ 17½c.....	1008	8 22
	J. H. Nold.....	74½ hrs. w., carp. bench's @ 15c.....	1009	11 15
	H. Chantler.....	59 hrs wk foundry floor @ 15c.....	1010	8 85
	L. C. Franks.....	54½ " " ".....	1011	8 15
	E. B. Glenn.....	30 hrs. wk. in forge shop @ 15c.....	1012	4 50
	O. C. Morris.....	59½ hrs. w. in carp. shop @ 25c.....	1013	14 87
	Geo. McKeog.....	46 " " ".....	1014	11 50
	S. S. Freeman.....	Chemicals, etc.....	1015	4 79
	Champlin Ptg. Co.....	500 cards.....	1016	2 00
	Tallmadge Hdw. Co.....	Hardware.....	1017	3 78
	Bissell, Dodge & E. Co.....	Conduits.....	1018	31
	Col. Transfer Co.....	60 loads manure @ \$1.....	1019	60 00
	Richards & Co.....	Microscopes, etc.....	1020	164 06
	L. L. Williams.....	120 hrs. lib. wk. @ 12½c.....	1021	15 00
	F. C. Caldwell.....	Supervision elect. install.....	1022	75 00
	Landon Ptg. & Pub. Co.....	Circulars.....	1023	1 75
	Tracy-Wells Co.....	1 copy book.....	1024	1 65
	C. W. Burkett.....	200 1c., 200 2c. stamps.....	1025	7 00
	H. Cole.....	1 lens.....	1026	1 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Oct. 7	G. E. Stechert.....	Atlas of the Brain	1027	\$4 00
	A. H. Smythe	2 color wheels, etc.....	1028	14 65
	Tallmadge Hdw. Co.....	Hardware	1029	12 78
	Cassell Pub. Co	1 book	1030	7 62
	A. C. Barrows	Cash paid for cases	1031	10 89
	H. Braun, Sons & Co	1 Trocar	1032	75
	A. B. Detchon	10 hours work @ 12½c, etc.....	1033	2 15
	E. M. Smith	135 hours work @ 15c	1034	20 55
	W. F. Sparhawk	1 mattress, towels, etc.....	1035	5 95
	W. Burdell, Jr.....	3 halters, 1 brush	1036	3 25
	Alexis Cope	Cash paid for work, as per receipt.....	1037	6 00
	Murphy Iron Works.....	Furnaces, balance due	1038	600 00
	Cap. City Mch. Works...	Chisels, etc.....	1039	2 00
	Col. Supply Co.....	Fittings.....	1040	3 25
	R. Thomas & Sons Co..	Bushings.....	1041	5 80
	Cent. Elect. Co	Canopies.....	1042	8 50
	Hann & Adair.....	2,000 time cards	1043	3 60
	Cent. Elect. Co.....	Switches, sockets, etc.....	1044	26 55
	C. H. Woodruff.....	Carpenter work, Drawing Department	1045	80 00
	Blackwood, Green & Co.	1 copper print washer	1046	4 00
	Murray City Coal Co....	Coal, smithing, 1 ton.....	1047	3 00
	E. A. Cole & Co	Coal del. September, 1897.....	1048	138 80
	E. F. Jenks	3 locks	1049	6 00
	Payne McD. Hdw. Co....	Hardware	1050	13 38
	G. W. Clarke & Co	Lumber.....	1051	3 40
	Kelton & Brown.....	Cases and table	1052	210 00
	Kelton & Converse	Lumber.....	1053	11 78
	P. Nell	Labels	1054	2 51
	McClelland & Co	Paper, paste, etc.....	1055	13 45
	Hann & Adair.....	3,000 date slips, etc.....	1056	3 13
	D. S. Kellicott.....	Laboratory expenses	1057	5 85
	Bausch & Lomb Opt. Co.	1 micrometer.....	1058	2 67
	Spahr & Glenn.....	300 announcements.....	1059	8 50
	A. W. Jackson & Son....	Books, binding.....	1060	9 00
	J. H. Randall.....	4 hours carp. wk. @ 25c	1061	1 00
	Tallmadge Hdw. Co.....	Hardware.....	1062	1 38
	J. H. Randall.....	4 hours carp. wk. @ 25c	1063	1 00
	C. H. Woodruff.....	Carpenter work	1064	27 08
	Burrows Bros Co	Cook books	1065	3 77
	L. S. Wells	Paper and hanging	1066	14 00
	C. T. Pfaff & Co	Table ware	1067	28 49
	Std. Sch. Furn. Co.....	1 black board.....	1068	9 35
	Krauss, Butler & B. Co.	Furnishings.....	1069	30 00
	Z. L. White	6 shades, etc.....	1070	3 96
	Col. Cabinet Co	4 special tables.....	1071	143 50
	C. O. Paper Co	Paper	1072	2 04
	Majestic Mfg. Co.....	1 range	1073	78 00
	Champlin Ptg. Co.....	500 cor. paper and env.....	1074	3 25
	Col. Supply Co.....	Fittings.....	1075	16 92
	N. P. Oglesby	19 hrs. wk. store room @ 15c.	1076	2 85
	W. B. Calkins	90 " " "	1077	13 50
	Seraphim Bl'k B'k Co.	Blank books.....	1078	6 50
	Kimball & Matthews...	Supplies	1079	3 23

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Oct. 7	Blackwood, Green & Co	Hardware	1080	\$22 43
	F. B. Mitchell	Hulling clover seed	1081	10 85
	Deering Harv. Co.	Repairs, twine, etc	1082	25 43
	Lima Egg Case Co.	100 doz. boxes, compound	1083	1 00
	E. W. Pegg	Cows	1084	356 37
	F. S. Johnston	122 hours as clerk @ 12½c	1085	15 25
	H. Braun, Sons & Co ...	4 thermometers	1086	3 00
	A. W. Livingston's Sons	3 bu. field peas, etc	1087	7 76
	Cap. City Mch. Wks	Work on motor materials	1088	5 67
	G. E. Stechert	Books	1089	24 00
	Burrows Bros. & Co.	"	1090	64 70
	I. P. Frink	25 12-in. shades	1091	16 50
	F. F. Bonnet	1 clock	1092	6 00
	A. H. Smythe	2 fountain pens	1093	2 00
	J. H. Randall	5 hours carpenter work @ 25c	1094	1 25
	E. H. Barton	4 " " " "	1095	1 00
	Gertrude Kellicott	2 pair scissors, etc	1096	60
	C. H. Woodruff	Carpenter work	1097	28 50
	Nitschke Bros	Pencils, bands, etc	1098	2 70
	McClelland & Co	1 file	1099	35
	Boston Book Co	Index to vols. 1-85 Harper's magazine	1100	5 28
	Lemcke & Buechner	1 book	1101	54
	F. J. Olsson	Harvard class	1102	8 68
	West Pub. Co	Books	1103	26 23
	R. R. Bowker	1 book	1104	2 00
	Tallmadge Hdw. Co.	Hardware	1105	65
	Taylor-Austin Co	Books	1106	115 44
	Laning Ptg. Co	5159 sheets book paper	1107	123 35
	Lawrence Pub. Co	Zinc etching Towns. Hall	1108	5 25
	Beacon Light	Adv	1109	7 50
	Champlin Ptg. Co	Printing cards, etc	1110	198 60
	Hann & Adair	" envelopes, etc	1111	15 70
	Cols. Dispatch	Adv	1112	6 90
	Harper Ill. Syn	Adv. cuts	1113	2 10
	Nitschke Bros	Stationery, etc	1114	31 92
	O. T. Corson	Advertising	1115	22 50
	Weekly Law Bulletin ..	"	1116	30 00
	O. S. Journal Co	"	1117	3 60
	Jas. Stainbrook	25 days @ 1 50	1118	37 50
	Thos. Bonde	25 days @ \$1.50 36 hours @ 15c	1119	42 90
	Marion Peck	25 days @ \$1 50	1120	39 90
	J. Garrettson	24 days @ \$1.50 helper	1121	36 00
	J. L. D. Nichols	15 days @ \$1 50 asst. fireman ..	1122	22 50
	Henry Chantler	20 days @ \$1.50 as janitor	1123	30 00
	J. S. Deeter	46 hours jan. work @ 15c	1124	6 90
	H. Gamber	80 " " " "	1125	12 00
	Tallmadge Hdw. Co.	Hardware	1126	1 03
	Hayden, Min. & Mfg Co	Brick and clay	1127	19 50
	B. D. Potts	Fittings, etc	1128	3 72
	T. A. Randall & Co	Adv. in clay worker	1129	20 00
	H. Cole	3 dozen coordinate	1130	45
	J. McAllister	11 days 2 hours @ 15c repairs Cer dept	1131	16 80

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897. Oct. 8	D. Singleton	34½ hrs. bricklay. Cer. Dept. @ 45c.....	1132	\$15 53
	E. Orton, Jr	Cash paid work Ceramic Department.....	1133	13 00
	L. E. Barringer.....	25½ hrs. repairs Ceramic Department, @ 12½c.....	1134	3 21
	P. Hayden Hdw. Co	Grinding machine	1135	55 41
	N. B. Abbott.....	Grate bars.....	1136	11 60
	Imp. Porcelain Wks.....	2 jars complete and balls.....	1137	15 00
	E. H. Barton.....	14 hours carp. work, @ 25c	1138	3 50
	C. H. Woodruff.....	Carp. work	1139	39 00
	Christy Fire Clay Co.....	Clay	1140	9 24
	F. Jennings.....	12 hours, @ 17½c. as paver.....	1141	2 10
	C. M. Ruhlen.....	17 " 15c	1142	2 55
	John Kane	155 " 12½c.....	1143	19 38
	P. R. Hord	20 "	1144	2 50
	J. F. Hale	15½ hours work @ 15c.....	1145	2 33
	F. S. Estep.....	13 "	1146	1 95
	M. Cook.....	155 " 12½c.....	1147	19 38
	E. H. Bailey.....	48½ " 15c.....	1148	7 28
	F. J. Tyler.....	14½ " 12½c.....	1149	1 81
	C. M. Sprague	16½ " 12½c.....	1150	2 06
	D. K. Starbuck.....	4 " 12½c.....	1151	50
	Col. Supply Co	Pipe and fittings.....	1152	77 74
	H. Cole	3 boxes lead.....	1153	45
	Col. Sewer Pipe Co	Sewer pipe.....	1154	1 42
	T. J. Dundon & Co.....	Lumber.....	1155	38 30
	Cap. City Mach. Works..	Rods, etc.....	1156	6 74
	Tallmadge Hdw. Co.....	Hardware	1157	3 90
	Kilbourne-Jones Co.....	Bolts, washers, etc.....	1158	3 24
	Thompson & Bushnell..	Repairing two indicators	1159	9 00
	C. J. Tagliabue	Instruments.....	1160	81 33
	C. J. Morrow	13½ hours work @ 12½	1161	1 69
	J. Massy	Calclmining museum & classroom	1162	15 00
	Dodge Mfg. Co	Hangers, etc.....	1163	24 55
	A. F. Hall	24 days work @ \$2.....	1164	48 00
	Tallmadge Hdw. Co.....	Hardware	1165	3 11
	J. G. Biddle	1 galvanometer.....	1166	30 50
	McClelland & Co	Carbon paper.....	1167	50
	Schoedinger, Fearn & Co	Hardware	1168	63
	West'n Elec. Inst. Co...	1 Lab. voltmeter	1169	108 00
	J. H. Auld	Copper and screws.....	1170	3 38
	A. T. Kasley	3½ hrs. Elec. Lab. wrk. @ 12½c	1171	44
	W. E. Chappell	64 " 15c.....	1172	9 60
	M. Barcus.....	43½ " 12½c	1173	5 44
	A. E. Loeb	13½ " 17½c	1174	2 36
	E. G. Webster	5½ " 12½c	1175	72
	Engelke & Bigelow.....	Freight and cartage.....	1176	51 70
	Kelton & Converse	Lumber	1177	18 20
	Bryson, Brubacker & Co	Insurance Arm. & B. Bldg	1178	147 00
	M. P. Streett	Mason work, etc.....	1179	226 55
	Col. Rubber & Belt Co..	Pipes, etc	1180	30 27
	Cap. City Mach. Works..	Pipes, castings, etc	1181	214 31
	Leavitt Mach. Works ...	Morse valve reseating outfit..	1182	90 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Oct. 8	New Col. Bridge Co.....	Bolts, etc.....	1183	\$8 00
	D'Este & Seeley Co.....	Traps, etc.....	1184	182 00
	Col. Supply Co.....	Pipe and fittings.....	1185	60 77
	Bissell, Dodge & E. Co..	Elect. supplies.....	1186	141 26
	J. A. Spurrier.....	Electric plant work.....	1187	25 45
	W. E. Chappell.....	90 hours ".....	1188	13 50
	A. A. Loeb.....	160 " " @ 17½c.....	1189	28 00
	E. G. Webster.....	5 " " 12½.....	1190	63
	M. Barcus.....	66½ " " 12½.....	1191	8 31
	A. T. Kasley.....	17 " ".....	1192	2 33
	O. A. Davis.....	192¾ " " @ 17½c.....	1193	33 83
	T. & O. C. Ry. Co.....	Freight.....	1194	22 46
	C. Weier.....	14½ hrs. brick layer @ 45c.....	1195	6 50
	Redett & Sons.....	Brick.....	1196	94 55
	J. F. Tulga.....	Making tools.....	1197	1 35
	C. E. Morris & Co.....	Iron work.....	1198	59 55
	Orr, Brown & Price.....	Muriatic acid.....	1199	6 08
	C. O. Paper Co.....	Roofing and sheathing.....	1200	14 70
	Col. Supply Co.....	Sundries.....	1201	2 71
	P., C., C. & St. L. Ry. Co.	Freight.....	1202	54 48
	C., S. & H. Ry. Co.....	Freight and car service.....	1203	860 62
	C., A. & C. Ry. Co.....	" ".....	1204	194 25
	Ind. Terra Cotta Co.....	Terra cotta.....	1205	1,182 25
	C., C., C. & St. L. Ry. Co.	Switching.....	1206	6 00
	Pedrick & Ferris.....	Mixed mortar.....	1207	533 87
	Climax Stone Co.....	Stone.....	1208	454 09
	J. C. Hearn & Co.....	Repairing.....	1209	29 05
	Lawrence Press Co.....	Office stationery.....	1210	6 80
	Kilbourne-Jones Co.....	Hardware.....	1211	747 69
	Schoedinger Fearn & Co	".....	1212	30 42
	W. U. Telegraph Co.....	Telegrams.....	1213	15 18
	Jas. Tarbutt.....	Second hand lumber.....	1214	21 94
	New Lex Press Brick Co.	Press brick.....	1215	224 54
	Ruggles-Gale Co.....	Office stationery.....	1216	3 25
	Penn. Fuel Co.....	Lime, coal and hauling.....	1217	461 19
	C. Durner.....	Sharpening tools.....	1218	74 86
	Fultonham Brick Co.....	Common brick.....	1219	1,229 10
	F. Ward.....	Weighing lime and sand.....	1220	11 25
	Col. Brick & Terra C. Co	Press brick.....	1221	148 29
	C., H., V. & T. Ry. Co..	Freight.....	1222	19 71
	Warthorst & Co.....	Press brick.....	1223	1,177 95
	R. A. McClure.....	Mill work.....	1224	250 00
	White & Pixley.....	Elect. work.....	1225	200 00
	Champion Iron Co.....	Ornamental and structural iron.....	1226	3,000 00
	J. W. Coulson & Co.....	Painting and glazing.....	1227	300 00
	C. H. Lyon.....	Bolts and rods.....	1228	131 63
	Adam Wagner.....	Elevator.....	1229	58 00
	C. U. Telephone Co.....	Service.....	1230	16 50
	Buckeye Brick Co.....	Press brick.....	1231	2,383 13
	Standard Oil Co.....	Oils.....	1232	6 93
	L. Schreiber Sons Co..	Iron.....	1233	3,500 00
	Fitzpatrick & Hoepfner	Plumbing, heating and ventil- ating.....	1234	1,000 00
	Wm. Caldwell.....	Lumber.....	1235	1,099 63

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Oct 8	Taylor, Beall & Co.....	Stone.....	1236	\$355 00
	Saunders & Esswein.....	Plumbing, heating, etc.....	1237	200 00
	Col. Bolt Works.....	Bolts, rods, etc.....	1238	16 96
	Engelke & Bigelow.....	Freight and hauling.....	1239	549 18
	T. J. Dundon & Co.....	Lumber.....	1240	2,441 22
	H. E. Kennedy, Supt.....	Expressage.....	1241	25
	W. U. Telegraph Co.....	Telegrams.....	1242	1 10
	Ruggles-Gale Co.....	Stationery.....	1243	90
	T. J. Dundon & Co.....	Lumber.....	1244	2 98
	Jas. Larrison.....	50 hours bricklaying helper @ 15c.....	1245	7 50
	Melville Morice.....	46½ hours @ 17½c. bricklayer's labor.....	1246	8 15
	Jack Strain.....	54 hrs. bricklaying @ 15c.....	1247	8 10
	J. T. Mack.....	Exp. meeting Oct. 6, 1897.....	1248	11 65
9	E. Baker.....	24 hrs. as bricklayer @ 45c.....	1249	10 80
	C. Robinson.....	55½ hrs. helper " 15c.....	1250	9 70
	C. L. Wattering.....	Hauling brick.....	1251	161 83
	H. E. Kennedy, Supt.....	Salary as Supt. Sept., 1894.....	1252	350 00
	Chas. Stainbrook.....	Laying enamel brick.....	1253	374 00
	O. A. Davis.....	10 salary Sept. inst., 1897.....	1254	10 00
	C. Riddle.....	" ".....	1255	20 00
	W. E. Chappel.....	" ".....	1256	10 00
11	Alfred Butcher.....	21½ hours brick layer's helper @ 15c.....	1257	3 20
12	Mrs. J. F. Worcester.....	12 meals, board of trustees Aug. 4, and Sept. 10.....	1258	4 20
	J. McLain Smith.....	Expenses at meeting October 6, 1897.....	1259	7 70
13	F. M. Senter P. M.....	Stamps, 100-5c., 300-3c., 700-2c., 700-1c., 500 postals.....	1260	40 00
14	F. W. Prentiss.....	B-E. to order of C. Kob & Co.....	1261	850 61
	W. M. Williams.....	23 hrs. bricklaying @ 45c.....	1262	10 35
	Chas. Reeb.....	33 hrs. bricklaying @ 45c.....	1263	14 85
	Maggie Zimmerman.....	Serv. maid Domestic Science Department.....	1264	4 50
16	H. E. Kennedy, Supt.....	Pay roll Armory.....	1265	3,425 35
	H. E. Kennedy, Supt.....	" Biol. Bldg.....	1266	421 40
	H. E. Kennedy, Supt.....	" Towns. Hall.....	1267	1,744 40
	Col. Gas Co.....	Gas for Sept., 1897.....	1268	62 25
	W. I. Chamberlain.....	Exp. at meeting Oct. 6, 1897.....	1269	12 50
	F. M. Senter, P. M.....	100-2c. stamped envelopes.....	1270	21 80
18	I. Corvead.....	22 hours @ 15c. brick work.....	1271	3 30
	Chas. Mullis.....	18 hours work @ 15c.....	1272	2 70
19	Tom Hays.....	16 hours brick work @ 35c.....	1273	5 60
20	Col. Water Works.....	Water rents and charges.....	1274	208 96
21	Maggie Zimmerman.....	Serv. 1 wk. Dept. Dom. Science.....	1275	3 00
22	Eimer & Amend.....	Instruments.....	1276	227 08
	F. Kelley.....	46 hours work @ 17½.....	1277	8 05
23	Chas. Keller.....	56 hours bricklaying @ 45c.....	1278	25 20
	H. Watheischwang.....	56 " ".....	1279	25 20
	L. Frost.....	56 " ".....	1280	25 20
	C. L. Wattering.....	Hauling brick.....	1281	52 08
	John Brothe.....	60 hrs. stone cutting @ 40c.....	1282	24 00
	J. Shaw.....	60 " ".....	1283	24 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Total.
1897.				
Oct. 23	W. Shaw	60 hrs. stone cutting @ 40c....	1284	\$24 00
	H. Maddocks.....	64 " "	1285	25 60
	F. Frelevane	64 " "	1286	25 60
	John King.....	64 " "	1287	25 60
	Philip Schell.....	64 " "	1288	25 60
	Adam S. Tencker.....	64 " "	1289	25 60
	J. R. Abernathy.....	64 " "	1290	25 60
	Joe Leibold.....	64 " "	1291	25 60
25	E. T. Garner.....	Brick wk., Drill Hall.....	1292	14 80
	E. Jackson.....	63 hrs. brick wk. @ 17½c.....	1293	11 00
	A. Maier.....	61½ " carp " 25c.....	1294	15 35
	E. R. Eaton, Agt.....	Elevator as per contract.....	1295	1,025 00
	Wm. Geisel.....	30 hrs. wk. @ 11½c., Drill Hall	1296	3 35
	Wm. Hewitt.....	Carp. wk., Towns. Hall.....	1297	12 15
26	C. W. Rice.....	" 81 hrs. @ 25c.....	1298	20 25
27	Westinghouse E. Co.....	Converters, etc.....	1299	529 00
30	H. A. Weber.....	10 sal., Oct. inst., 1897.....	1300	225 00
	A. M. Bleile.....	" "	1301	225 00
	W. A. Kellerman.....	" "	1302	225 00
	C. N. Brown.....	" "	1303	225 00
	A. C. Barrows.....	" "	1304	225 00
	Edw. Orton.....	" "	1305	225 00
	E. A. Eggers.....	" "	1306	225 00
	J. R. Smith.....	" "	1307	225 00
	G. W. Knight.....	" "	1308	225 00
	W. R. Lazenby.....	" "	1309	225 00
	S. C. Derby.....	" "	1310	225 00
	R. D. Bohannan.....	" "	1311	225 00
	W. T. Magruder.....	" "	1312	225 00
	J. P. Gordy.....	" "	1313	225 00
	W. H. Scott.....	" "	1314	225 00
	B. F. Thomas.....	" "	1315	225 00
	J. V. Denney.....	" "	1316	225 00
	B. L. Bowen.....	" "	1317	225 00
	D. S. Kellicott.....	" "	1318	225 00
	A. L. Williston.....	" "	1319	225 00
	N. W. Lord.....	" "	1320	200 00
	G. W. Kauffman.....	" "	1321	200 00
	Wm. McPherson.....	" "	1322	200 00
	F. A. Ray.....	" "	1323	200 00
	Edw. Orton, Jr.....	" "	1324	180 00
	J. N. Bradford.....	" "	1325	180 00
	G. W. McCoard.....	" "	1326	160 00
	H. C. Lord.....	" "	1327	150 00
	E. A. Hitchcock.....	" "	1328	150 00
	W. D. Gibbs.....	" "	1329	140 00
	P. G. Bowman.....	" "	1330	140 00
	F. C. Caldwell.....	" "	1331	140 00
	D. S. White.....	" "	1332	140 00
	S. A. Norton.....	" "	1333	120 00
	R. I. Fulton.....	" "	1334	120 00
	O. B. Jones.....	" "	1335	120 00
	J. E. Boyd.....	" "	1336	110 00
	C. E. Sherman.....	" "	1337	100 00
	T. E. French.....	" "	1338	100 00

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Date.	To whom paid	For what purpose.	No.	Amount.
1897.				
Oct. 30	Jas. H. Canfield.....	Salary for Oct., 1897.....	1394	\$500 00
	T. F. Hunt.....	¹ / ₁₀ salary Oct. inst., 1897.....	1395	250 00
	Alexis Cope.....	Salary for Oct., 1897.....	1396	187 50
	W. C. McCracken.....	" ".....	1397	125 00
	Jean Blackford.....	" ".....	1398	50 00
	Edith Cockins.....	" ".....	1399	54 17
	W. K. Moorhead.....	" ".....	1400	50 00
	C. B. Hine.....	" ".....	1401	50 00
	Chas Low.....	" ".....	1402	54 17
	Mary H. Cope.....	" ".....	1403	50 00
	Wm. Standley.....	" ".....	1404	45 00
	Benj. LeBay.....	" ".....	1405	45 00
	G. R. Rose.....	" ".....	1406	65 00
	A. Chantler.....	" ".....	1407	45 00
	Wm. Whitestone.....	" ".....	1408	45 00
	Jas. Kelly.....	" ".....	1409	41 67
	F. B. Brewer.....	" ".....	1410	40 00
	J. E. Adams.....	" ".....	1411	40 00
	John Conrad.....	" ".....	1412	40 00
	W. Townshend.....	" ".....	1413	30 00
	Edw. Stalter.....	" ".....	1414	20 00
	J. B. Parker.....	" ".....	1415	13 50
	W. R. Beattie.....	" ".....	1416	54 17
	F. W. Prentiss.....	" ".....	1417	33 33
	J. H. Brown.....	" ".....	1418	45 00
	Geo. Washington.....	62 hrs. brick wk. @ 15c.....	1419	9 30
	A. V. Bleininger.....	¹ / ₁₀ salary Oct. inst., 1897.....	1420	20 00
28	Maggie Zimmerman.....	1 wk. Dep. Dom. Science.....	1421	3 00
30	W. C. Weir.....	Salary for Oct., 1897.....	1422	20 00
	H. E. Kennedy, Supt.....	Pay roll, Towns Hall.....	1423	1,399 05
	H. E. Kennedy, Supt.....	" Biol. Bldg.....	1424	455 00
	H. E. Kennedy, Supt.....	" Armory and Gym.....	1425	3,507 15
Nov. 1	Thos. Hewitt.....	18 hrs. work, Towns. Hall @ 15c.....	1426	2 70
	Jerry Riffe.....	16 hrs. brick work @ 45c.....	1427	7 20
	I. Hays.....	16 hrs. brick wk. Arm. & Gym.....	1428	11 15
	F. Ferguson.....	" Towns. Hall.....	1429	3 60
2	J. R. Kintz.....	16 hrs. " @ 45c.....	1430	7 20
3	A. W. Leftwich.....	" Drill Hall.....	1431	2 70
	J. Corbin.....	" ".....	1432	2 70
	M. Bruck.....	" Drill Hall.....	1433	2 85
	Ben Thomas.....	16 hrs. " @ 40c.....	1434	7 20
	J. L. Schneider.....	" " 35c.....	1435	5 60
	Wm. Sargent.....	" Towns Hall.....	1436	2 70
	Tracy-Wells Co.....	Brooms, dusters, etc.....	1437	14 77
	D. H. Derflinger.....	Gasoline, etc.....	1438	3 55
	Postal Tel. Cable Co.....	Messages.....	1439	94
	Standard Oil Co.....	Oil.....	1440	55 26
	D. V. Burkett.....	Information Bureau work.....	1441	27 00
	W. U. Telegraph Co.....	Messages.....	1442	50
	H. C. Lord.....	Expenses as delegate, Yerkes, Observatory.....	1443	34 05
	A. D. Telegraph Co.....	Messenger service.....	1444	35
	Webb Sta. and Ptg. Co.....	Office supplies.....	1445	24 50
	McClelland & Co.....	Rubber bands.....	1446	8 22

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Nov. 3	C. O. Paper Co	Book paper.....	1447	\$19 00
	R. J. West.....	81 hours guide work.....	1448	10 12
	Mitchell Adv. Co	Depot time card 3 mo.....	1449	1 00
	Alexis Cope	Expenses to Circleville, Page wil.....	1450	3 00
	R. J. Seymour.....	60 hours guide work.....	1451	7 50
	Blackwood Green Co	Tin.....	1452	1 69
	O. A. Davis.....	161½ hours plant work @ 17½c	1453	28 26
	Champlin Ptg. Co.....	Letter heads, etc.....	1454	6 00
	S. V. Peppel.....	Asst. Dept. Chemistry.....	1455	6 60
	Z. L. White & Co	Table linen, etc.....	1456	26 51
	Spahr & Glenn	Stationery	1457	7 25
	C. C. Fergus.....	22 hours work at 15c.....	1458	3 30
	W. K. Moorehead.....	Work in Museum	1459	56 80
	H. Cole & Co.....	1 protractor	1460	9 00
	Jas. Stainbrook.....	26 days @ \$1.50.....	1461	39 00
	E. T. Fullmer	66 hours work @ 15c	1462	9 90
	Murray City Coal Co.....	Coal	1463	264 78
	E. A. Cole & Co	"	1464	3 11
	D. S. White	Instruments	1465	1 25
	H. J. Detmers	1 set spraying instruments...	1466	25 00
	D. C. Beggs & Co.....	4 shades made and hung.....	1467	3 60
	Wm. Burdell	2 stable blankets	1468	4 50
	H. Braun Sons & Co.....	Thermometers, oil, etc	1469	19 01
	J. M. & W. Westwater...	1½ com. pdt. burner.....	1470	5 00
	Andrew Earl	Lumber	1471	5 50
	J. H. Randall	1½ hours carpenter wk @ 25c..	1472	1 87
	E. H. Barton	5 " " "	1473	1 25
	Col. Paint Mfg. Co	Paint	1474	60
	J. B. Colt & Co.....	1 elec. lamp	1475	11 25
	Ruggles-Gale Co	Paper, etc.....	1476	13 00
	Frankenberg Bros.....	200 trays	1477	1 50
	D. Mason	Varnishing case.....	1478	3 00
	J. G. Biddle	Instruments, etc.....	1479	42 50
	Chic. Lab. Sup. & S. Co	"	1480	79 38
4	Landon Ptg. & Pub. Co	Letter heads, env. etc.....	1481	11 75
	Wm. Shaw	37 hours brick work @ 45c Arm	1482	16 65
	Bernize & Jones.....	1 steel share, etc.....	1483	3 80
	Hann & Adair.....	Paper and pens.....	1484	2 30
	Benj. Rushmer	Horse shoeing, etc	1485	34 55
	J. A. Wallace.....	1 lecture, etc.....	1486	10 00
	F. S. Johnson	108 hours cler. ast. @ 12½c..	1487	13 50
	Bissell, Dodge & E. Co..	Wire braids	1488	6 27
	Cap. City Mch. Wks	Iron	1489	52
	Am. Battery Co	Battery cells.....	1490	29 35
	J. G. Biddle	1 voltmeter.....	1491	71 76
	R. T. Stewart	1 bird for museum.....	1492	5 00
	H. Braun Sons & Co.....	1 dozen dissecting boxes	1493	3 65
	Hann & Adair	Slips and blank cards.....	1494	1 50
	L. S. Wells.....	Books.....	1495	20 00
	Nitschke Bros.....	100 certificates.....	1496	3 00
	Harper Ill. Syn	Adv. cuts	1497	10 35
	O. S. Journal Co.....	Adv	1498	7 45
	Press-Post Ptg. Co.....	Adv	1499	8 06

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Nov. 4	Landon Ptg. & Pub. Co.	Ptg. slips, etc.....	1500	\$35 00
	C. H. Woodruff.....	Carp. wk.....	1501	4 80
	Houghton, Mifflin & Co.	1 book.....	1502	1 20
	Spahr & Glenn.....	Letter heads, env., etc.....	1503	9 25
	The McMillan Co.....	1 Lafange Ptg.....	1504	1 04
	Chas. Scribner's Sons...	1 Meredith Essay on Comedy.	1505	1 00
	Harper & Bros.....	Books.....	1506	1 54
	D. Appleton & Co.....	Armsdales Lang. Arts.....	1507	79
	G. E. Stechert.....	Books.....	1508	24 00
	Engelke & Bigelow.....	Frt. and cartage on guns.....	1509	4 64
	Nitschke Bros.....	Letter heads, etc.....	1510	10 75
	F. Kull.....	25 hrs. stone wk. @ 40c.....	1511	10 00
	C. Alberts.....	".....	1512	10 00
	John Troit.....	"..... 45c.....	1513	10 00
	J. T. Martin.....	Cash adv. in paym't bills.....	1514	2 00
	Gen'l Elect. Co.....	1 battery.....	1515	4 20
	Tallmadge Hdw. Co.....	Hardware.....	1516	1 70
	Cap. City Mch. Wks.....	5 lbs. grease.....	1517	60
	Cherington P. & E. Co.	1 pad, etc.....	1518	2 50
	Kilbourne-Jones Co.....	Copper wire, etc.....	1519	4 74
	Cent. Elec. Co.....	Battery jars.....	1520	4 48
	E. H. Barton.....	4 hrs. carp. wk. @ 25c.....	1521	1 00
	J. H. Randall.....	5 ".....	1522	1 25
	Kimball & Matthews...	Photo supplies.....	1523	1 95
	W. J. Corns.....	Ptg., varnishing, etc.....	1524	41 00
	J. Rath.....	Cleaning furn., etc., repairing	1525	15 00
	Manhattan Concrete Co	Slating, blackboard.....	1526	33 50
	I. Rumley.....	27 hrs. brick wk. @ 15c.....	1527	4 05
	Geo. Sayers.....	25 hrs. stone wk. @ 30c.....	1528	7 50
	Hanna Paint Mfg. Co....	Paints and oils.....	1529	2 45
	Borger Bros. & Co.....	Repairs on boiler, etc.....	1530	15 40
	Griswold Sohl Co.....	Iron.....	1531	1 03
	Col. Brass Co.....	3 rubbers.....	1532	60
	Murphy Iron Wks.....	Plate slides, etc.....	1533	4 10
	Westinghouse Elec. Co.	1 marble slab, etc.....	1534	9 28
	Blackwood, Green & Co.	Charcoal, etc.....	1535	2 95
	B. D. Potts.....	Pipe, etc.....	1536	2 19
	J. R. Spurrier.....	10½ hrs. Elect. plant wk. @ 20c.....	1537	2 10
	E. G. Webster.....	88½ hrs. Plant wk. @ 12½c.....	1538	11 03
	F. Estep.....	23 "..... 15c.....	1539	3 45
	F. D. Price.....	25 "..... 12½c.....	1540	3 12
	K. D. Starbuck.....	45 "..... 10c.....	1541	4 50
	A. G. Fritchey.....	5 gals. gasoline.....	1542	50
	Joe Garretson.....	26 days @ \$1.50.....	1543	39 00
	J. J. Gheen.....	Kalsomining Room No. 42....	1544	4 40
	Tallmadge Hdw. Co.....	Hardware.....	1545	15
	D. Mason.....	8 hrs. wk. @ 25c.....	1546	2 00
	E. H. Barton.....	17½ hrs. carp. wk. @ 25c.....	1547	4 37
	The Globe Co.....	1 card index cabinet.....	1548	22 50
	Library Bureau.....	Library supplies.....	1549	13 96
	J. M. & W. Westwater...	1 Elect. portable.....	1550	4 00
	McAllister Mohler & Co.	1 daily report file, etc.....	1551	27 30
	A. Earl.....	Lumber.....	1552	5 83

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Nov. 4	C. H. Woodruff.....	12½ hrs. carp. wk. @ 27½c.....	1553	\$3 47
	J. H. Randall	28 " 25c.....	1554	7 00
	McClelland & Co.....	1 desk basket	1555	1 00
	Burrows & Bros. Co	Books.....	1556	30 78
	"Our Day" Co	Subscription from Feb., 1895, to Oct., 1897	1557	5 35
	G. E. Stechert.....	Books	1558	76 30
	Seraphim Bindery	Bookbinding	1559	54 80
	Champlin Ptg. Co.....	Vouchers, etc.....	1560	13 00
	G. B. Schulte Sons Co..	Hardware, tools, etc	1561	128 67
	H. Graham.....	20 hours work @ 15c	1562	3 00
	E. H. Bailey	40 hours shop work @ 40c.....	1563	6 00
	Wm. Erdman.....	61½ " 17½c	1564	10 75
	J. H. Nold.....	103 " 15c.....	1565	15 45
	C. W. High.....	11 "	1566	1 65
	Leland & F. Mfg. Co.....	1 grinding machine.....	1567	25 00
	E. A. Kinsey Co	Shafting, etc	1568	43 44
	Z. L. White & Co.....	1 door mat, shades	1569	3 85
	Kelton & Converse.....	Lumber	1570	29 02
	Fish Press Brick Co	Brick	1571	13 00
	Stitt, Price & Co.....	2 barrels fire clay.....	1572	3 00
	H. Gamper	10 salary jan., Oct., 1897.....	1573	10 00
	Shilling Foundry Co.....	Sand and drayage	1574	16 25
	Tallmadge Hdw. Co.....	Hardware	1575	16 45
	Hanna Pt. Mfg. Co.....	Orange shellac	1576	7 70
	The Q. & Co	2 dozen sharp saw blades	1577	2 50
	Henry White.....	20 hrs. brick work @ 15c	1578	3 00
	Kauffman-Lattimer Co..	Drugs and chemicals	1579	1,065 06
	W. B. Calkins	104 hours work @ 15c.....	1580	15 60
	N. P. Oglesby.....	50 "	1581	7 50
	C. H. Woodruff.....	Amount due for the making of racks.	1582	9 00
	Kimball & Mathews	Jars.....	1583	7 85
	Baker & Co.....	Platinum ware.....	1584	108 87
	Queen & Co	Balances, etc	1585	84 00
	Green, Joyce & Co	6 dozen towels.....	1586	7 50
	J. Carbutt.....	Plates, etc.....	1587	45 41
	Rochester Opt. Co	1 rubber tray, etc.....	1588	8 32
	Hann & Adair.....	Letter heads, slips, etc.....	1589	10 00
	Blackwood, Green & Co.	Hardware	1590	18 00
	C. L. Wattering.....	Hauling brick.....	1591	79 20
	C. J. Morrow.....	45 hours work @ 12½c.....	1592	5 63
	C. M. Ruhlen.....	18 " 15c.....	1593	2 70
	H. Chantler	57 " 15c.....	1594	8 55
	A. F. Hall	1 month labor Mechanical En- gineering Department	1595	60 00
	John Kane.....	80 hours work @ 12½c.....	1596	10 00
	R. R. Hord.....	10 "	1597	1 25
	E. H. Bailey.....	50 " 15c.....	1598	7 50
	M. Cook.....	77 " 12½c.....	1599	9 63
	F. J. Hale.....	27 " 15c.....	1600	4 05
	Longshore & Mackey...	Hauling	1601	50
	Ashcroft Mfg. Co	Repairs on apparatus	1602	20 50
	Tallmadge Hdw. Co.....	Hardware	1603	56
	McClelland & Co	2 dozen neostyle paper.....	1604	1 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Nov. 4	Schoedinger, Fearn & Co	Hardware.....	1605	\$3 40
	Bissell, Dodge & E. Co.	2 sets zinc type, etc.	1606	1 96
	Nitschke Bros.....	Stationery.....	1607	24 45
	Borger Bros. & Co.....	1 steel stand pipe.....	1608	60 00
	Kelton & Converse.....	Lumber.....	1609	6 96
	Acme Paving Co.	Plastering cistern.....	1610	74 50
	T. J. Dundon & Co.....	Lumber.....	1611	1 12
	L. S. Starrett.....	Indicators, etc.....	1612	16 31
	Col. Supply Co.....	Pipe and fittings.....	1613	42 21
	A. W. Livingston's Sons	Seeds.....	1614	1 45
	M. J. Morrow.....	10 hours work @ 12½c.....	1615	1 25
	F. S. Aten.....	20 " ".....	1616	2 50
	Col. Macadam Co.....	Crushed stone.....	1617	177 88
	B. J. Nicola.....	20 hours camp work @ 12½c...	1618	2 50
	R. S. Peters.....	20 " " ".....	1619	2 50
	T. W. Ditto.....	15 " " ".....	1620	1 88
	J. Cain.....	15 " " ".....	1621	1 88
	E. A. Falknor.....	36 " " ".....	1622	4 50
	W. L. Kelley.....	Work on grounds.....	1623	8 07
	A. C. Colton.....	".....	1624	9 51
	A. H. Snyder.....	".....	1625	6 76
	B. Saunders.....	".....	1626	6 63
	J. S. Parsons.....	".....	1627	4 26
	J. G. Ridinger.....	".....	1628	6 57
	A. F. Wilcox.....	".....	1629	35 40
	J. C. Perry.....	".....	1630	11 94
	E. E. Fisher.....	".....	1631	8 45
	E. S. Ream.....	".....	1632	9 69
	J. A. Thompson.....	".....	1633	25 06
	A. D. Mason.....	".....	1634	3 75
	J. M. Breese.....	".....	1635	3 38
	H. L. Belden.....	".....	1636	10 38
	B. W. Hershey.....	".....	1637	9 57
	H. J. Hammond.....	".....	1638	3 69
	J. Palmer.....	".....	1639	9 00
	Bissell, Dodge & E. Co.	Elect. supplies.....	1640	19 38
	Schoedinger, Fearn & Co	Hardware.....	1641	5 40
	A. T. Kasley.....	22½ hours work @ 12½c.....	1642	2 84
	C. H. Clevenger.....	Work on grounds.....	1643	7 75
	Elect. Appliance Co.....	Elect. supplies.....	1644	45 29
	C. E. Lee.....	Elect. lab. work.....	1645	3 95
	A. E. Loeb.....	".....	1646	11 11
	J. C. Britton.....	Work on grounds.....	1647	12 98
	W. E. Chappell.....	Elect. lab. work.....	1648	8 87
	A. H. McIntyre.....	Elect. plant.....	1649	2 55
	J. H. Randall.....	Carp. work.....	1650	32 38
	Col. Edison E. Light Co	Volt lamps, etc.....	1651	80 00
6	S. H. Satterswarth.....	Brick work, Armory.....	1652	7 20
	Yost & Packard.....	Service as archts., Armory... .	1653	600 00
	Yost & Packard.....	Service as archts., Biol. Hall..	1654	400 00
4	C. H. Woodruff.....	Carp. work.....	1655	78 30
	C. Thornburg.....	Work on grounds.....	1656	10 00
	E. H. Barton.....	Carp. work.....	1657	35 75
	Tallmadge Hdw. Co.....	Hardware.....	1658	13 73

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897. Nov. 5	Maggie Zimmerman.....	Service 1 week, Department Dom. Science.....	1659	\$3 00
	G. E. Stechert.....	Books.....	1660	30 91
	A. F. Conradi.....	Work on grounds.....	1661	6 26
	R. E. Whiting.....	".....	1662	5 69
	Engelke & Bigelow.....	Freight and hauling.....	1663	61 01
	Kelton & Converse.....	Lumber.....	1664	27 16
	Walter Gilmore.....	Work on grounds.....	1665	4 94
	H. Huff.....	".....	1666	6 87
	Col. Rubber & Beltg. Co.	Fittings.....	1667	65 82
	Col. Supply Co.....	Pipe and fittings.....	1668	43 72
	Thos. Bonde.....	Work as fireman.....	1669	58 20
	Cap. City Mch. Works..	Brackets, etc.....	1670	47 56
	W. J. Marion.....	Work on grounds.....	1671	3 69
	J. W. Brinker.....	".....	1672	3 75
	F. C. Kettler.....	".....	1673	4 94
	S. Teter.....	".....	1674	4 94
	A. Earl.....	Lumber.....	1675	20 88
	F. Rubins.....	Work on grounds.....	1676	4 87
	D. W. Galehouse.....	".....	1677	3 38
	M. Peck.....	26½ days work @ \$1.50.....	1678	41 25
	H. Chantler.....	8½ " ".....	1679	12 75
	R. Case.....	19 " ".....	1680	28 50
	Schoedinger F. & Co..	Towns. Hall equipt.....	1681	96
	Acme Paving Co.....	".....	1682	3 42
	Hayden Sad. Hdw. Co..	Hardware.....	1683	1 43
	Fish Stone Co.....	Stone.....	1684	12 29
	C. O. Paper Co.....	Lining for refrigerator.....	1685	37 40
	F. O. Schoedinger.....	Galv. iron box, etc.....	1686	7 80
	W. U. Telegraph Co....	Service, messages.....	1687	7 31
	C. Durner.....	Sharpening tools.....	1688	36 98
	Pedrick & Ferris.....	Mortar.....	1689	451 76
	F. Ward.....	Weighing lime and sand.....	1690	14 25
	F. O. Schoedinger.....	Tile roof, etc.....	1691	1,506 72
	Ind. Terra Cotta Co....	Terra cotta.....	1692	92 90
	Champion Iron Co.....	Structural and orn. iron.....	1693	500 00
	R. A. McClure.....	Mill work.....	1694	450 00
	White & Pixley.....	Elect. work.....	1695	125 00
	L. Schreiber Sons' Co..	Structural iron.....	1696	5,500 00
	Chas. Wuichet Co.....	Galvanized iron and roofing..	1697	3,000 00
	J. W. Coulson & Co....	Painting and glazing.....	1698	600 00
	Saunders & Esswein...	Plumbing, heating, etc.....	1699	2,000 00
	W. Caldwell.....	Mill work and lumber.....	1700	3,629 08
	Gilsonite Roof & Pav. Co	Roofing ..	1701	1,000 00
	W. U. Terra Cotta Co...	Terra cotta.....	1702	300 00
	Mrs. A. M. Winstanley..	Stone.....	1703	235 87
	C. S. & H. Ry. Co.....	Freight and switching.....	1704	767 04
	Redett & Sons.....	Press brick.....	1705	4 00
	Buckeye Brick Co.....	".....	1706	1,952 42
	Homegardner Sand Co	Sand.....	1707	57 48
	Warthorst & Co.....	Press brick.....	1708	1,354 09
	Fultonham Brick Co....	Common brick.....	1709	1,046 92
	Climax Stone Co.....	Stone.....	1710	119 54
	Kilbourne-Jones Co....	Hardware, etc.....	1711	1,666 18
	C. E. Morris & Co.....	Iron.....	1712	50 59

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897. Nov. 5	Schoedinger, F. & Co....	Hardware.....	1713	\$97 48
	Taylor, Beall & Co.....	Stone.....	1714	72 00
	Standard Oil Co.....	Engine oil.....	1715	1 05
	Penna. Fuel Co.....	Lime, etc.....	1716	256 03
	Engelke & Bigelow.....	Freight and hauling..	1717	191 19
	Fish Stone Co.....	Stone coping.....	1718	14 49
	Col. Supply Co.....	Sundries.....	1719	1 22
	Am. Enam. Brick & T. Co.....	Enamel brick.....	1720	332 81
	Orr, Brown & Price.....	Muriatic acid.....	1721	3 57
	Lawrence Press Co.....	Stationery.....	1722	8 35
	C., A. & C. Ry. Co.....	Freight.....	1723	118 91
	P., C., C. & St. L. Ry. Co.	".....	1724	24 51
	Derwacter & Hall.....	Iron for sheathing..	1725	2 50
	C., C., C. & St. L. Ry. Co.	Freight and switching.....	1726	100 71
	Tracy-Wells Co.....	Marbles.....	1727	4 65
	C. U. Telephone Co.....	Service.....	1728	2 45
	Ruggles-Gale Co.....	Office stationery.....	1729	4 00
	K. Nurian.....	$\frac{1}{10}$ salary October installment.	1730	10 00
	E. E. Somermeier.....	$\frac{2}{10}$ sal., Sept. & Oct. inst., 1897	1731	20 00
6	R. L. Miles.....	24 hrs. bricklaying @ 45c.....	1732	10 80
8	G. Neth.....	66 hrs. carp. work @ 30c.....	1733	19 80
	John Bramsburg.....	18 " " @ 25c.....	1734	4 50
9	T. J. Dundon & Co.....	Lumber.....	1735	626 71
	W. A. Morley.....	Brick work.....	1736	4 25
	D. V. Bartlett.....	".....	1737	4 50
	S. Long.....	59 hours @ 11 $\frac{1}{2}$ c.....	1738	6 55
	Peters, Burns & Pretzinger.....	Account services architects, Town's Hall.....	1739	700 00
10	Col. Gas. Co.....	Gas for October, 1897.....	1740	117 38
	H. E. Kennedy.....	Services as supt. buildings.....	1741	361 80
	T. J. Dundon & Co.....	Lumber, Town's Hall.....	1742	400 00
11	Maggie Zimmerman.....	Serv. 1 wk. Dep. Dom. Sci.....	1743	3 00
13	H. E. Kennedy, Supt.....	Pay roll, Arm. and Gym.....	1744	2,201 45
	H. E. Kennedy, Supt.....	" Biol. Hall.....	1745	218 85
	H. E. Kennedy, Supt.....	" Town's Hall.....	1746	1,190 65
	F. M. Senter.....	3,000 stamped envelopes.....	1747	66 48
	J. Schafer.....	4 hrs. bricklaying @ 45.....	1748	1 80
15	E. T. Watson.....	$\frac{1}{2}$ mo. salary, November 1 to November 15, 1897.....	1749	10 00
	J. T. Martin.....	Pay U. S. for ord. stores de- stroyed.....	1750	6 97
17	A. A. Griffing Iron Co....	1 2 sec. Elite radiator.....	1751	1 98
27	T. F. Hunt.....	$\frac{1}{10}$ salary, November inst., 1897	1752	250 00
	H. A. Weber.....	" " ".....	1753	225 00
	A. M. Bleile.....	" " ".....	1754	225 00
	W. A. Kellerman.....	" " ".....	1755	225 00
	C. N. Brown.....	" " ".....	1756	225 00
	A. C. Barrows.....	" " ".....	1757	225 00
	Edw. Orton.....	" " ".....	1758	225 00
	E. A. Eggers.....	" " ".....	1759	225 00
	J. R. Smith.....	" " ".....	1760	225 00
	Geo. W. Knight.....	" " ".....	1761	225 00
	W. R. Lazenby.....	" " ".....	1762	225 00
	S. C. Derby.....	" " ".....	1763	225 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Total.
1897.				
Nov. 27	R. D. Bohannon	1 st sal., Nov. inst., 1897.....	1764	\$225 00
	W. T. Magruder	" "	1765	225 00
	J. P. Gordy.....	" "	1766	225 00
	W. H. Scott.....	" "	1767	225 00
	B. F. Thomas.....	" "	1768	225 00
	J. V. Denney.....	" "	1769	225 00
	B. L. Bowen.....	" "	1770	225 00
	D. S. Kellicott.....	" "	1771	225 00
	A. L. Williston	" "	1772	225 00
	N. W. Lord.....	" "	1773	200 00
	G. B. Kauffman.....	" "	1774	200 00
	Wm. McPherson.....	" "	1775	200 00
	F. A. Ray.....	" "	1776	200 00
	Edw. Orton, Jr.....	" "	1777	180 00
	J. N. Bradford.....	" "	1778	180 00
	G. W. McCoard.....	" "	1779	160 00
	H. C. Lord.....	" "	1780	150 00
	E. A. Hitchcock.....	" "	1781	150 00
	W. D. Gibbs.....	" "	1782	140 00
	Perla G. Bowman.....	" "	1783	140 00
	F. C. Caldwell.....	" "	1784	140 00
	D. S. White.....	" "	1785	140 00
	S. A. Norton.....	" "	1786	120 00
	R. F.	" "	1787	120 00
	J. E. Boyd.....	" "	1788	110 00
	C. E. Sherman.....	" "	1789	100 00
	T. E. French.....	" "	1790	100 00
	C. W. Mesloh.....	" "	1791	100 00
	F. C. Clark.....	" "	1792	100 00
	W. H. Siebert.....	" "	1793	100 00
	A. W. Hodgman.....	" "	1794	100 00
	J. R. Taylor.....	" "	1795	100 00
	J. A. Bownocker.....	" "	1796	90 00
	W. A. Knight.....	" "	1797	90 00
	C. W. Weick.....	" "	1798	90 00
	C. C. Steffel.....	" "	1799	90 00
	C. W. Foulk.....	" "	1800	85 00
	C. L. Arnold.....	" "	1801	85 00
	K. D. Swartzel.....	" "	1802	85 00
	C. A. Dye.....	" "	1803	85 00
	J. S. Hinc.....	" "	1804	85 00
	J. H. Schaffner.....	" "	1805	80 00
	Clark Wissler.....	" "	1806	80 00
	W. L. Graves.....	" "	1807	80 00
	C. A. Bruce.....	" "	1808	80 00
	C. W. Burkett.....	" "	1809	75 00
	W. F. Lavery.....	" "	1810	70 00
	F. Haas.....	" "	1811	70 00
	A. E. Vinson.....	" "	1812	65 00
	F. L. Landacre.....	" "	1813	65 00
	T. K. Lewis.....	" "	1814	60 00
	E. M. VanHarlingen.....	" "	1815	60 00
	E. E. Harrold.....	" "	1816	70 00
	Harriet Townshend	" "	1817	55 00
	F. E. Kester.....	" "	1818	55 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1887. Nov. 27	Maude Jeffrey.....	$\frac{1}{10}$ salary Nov. inst., 1897 ...	1819	\$50 00
	Gertrude Kellicott.....	" " " " " "	1820	50 00
	W. H. Evans.....	" " " " " "	1821	40 00
	J. T. Martin.....	" " " " " "	1822	40 00
	J. R. Spurrier.....	" " " " " "	1823	35 00
	H. W. Kuhn.....	" " " " " "	1824	30 00
	H. Judd.....	" " " " " "	1825	30 00
	J. H. Fox.....	" " " " " "	1826	30 00
	C. T. Morris.....	Nov. inst. Mc. M. Fellowship..	1827	30 00
	J. F. Cunningham.....	$\frac{1}{10}$ salary Nov. inst., 1897.....	1828	30 00
	J. G. Boyd.....	" " " " " "	1829	25 00
	C. B. Fredericks.....	" " " " " "	1830	25 00
	Robt. Fisher.....	" " " " " "	1831	20 00
	C. Kiddle.....	" " " " " "	1832	20 00
	O. A. Davis.....	" " " " " "	1833	10 00
	W. E. Chappell.....	" " " " " "	1834	10 00
	H. Gamper.....	" " " " " "	1835	10 00
	K. Nurian.....	" " " " " "	1836	10 00
	E. E. Somermeir.....	" " " " " "	1837	10 00
	W. Hunter.....	" " " " " "	1838	250 00
	W. H. Page.....	" " " " " "	1839	100 00
	E. B. Kinkead.....	" " " " " "	1840	100 00
	D. F. Pugh.....	" " " " " "	1841	70 00
	E. O. Randall.....	" " " " " "	1842	65 00
	J. P. Jones.....	" " " " " "	1843	35 00
	G. W. Knight.....	" " " " " "	1844	25 00
	F. F. D. Albery.....	" " " " " "	1845	15 00
	J. H. Collins.....	" " " " " "	1846	10 00
	J. H. Canfield.....	Salary for Nov., 1897.....	1847	500 00
	Alexis Cope.....	" " " " " "	1848	187 50
	W. C. McCracken.....	" " " " " "	1849	125 00
	G. R. Rose.....	" " " " " "	1850	65 00
	Edith Cockins.....	" " " " " "	1851	54 17
	Chas. Low.....	" " " " " "	1852	54 17
	W. R. Beattie.....	" " " " " "	1853	54 17
	Jean Blackford.....	" " " " " "	1854	50 00
	C. B. Hine.....	" " " " " "	1855	50 00
	Mary H. Cope.....	" " " " " "	1856	50 00
	Wm. Standley.....	" " " " " "	1857	45 00
	Benj. LeBay.....	" " " " " "	1858	45 00
	Arthur Chantler.....	" " " " " "	1859	45 00
	J. H. Brown.....	" " " " " "	1860	45 00
	Wm. Whitestone.....	" " " " " "	1861	45 00
	Jas. Kelley.....	" " " " " "	1862	41 67
	F. B. Brewer.....	" " " " " "	1863	40 00
	John E. Adams.....	" " " " " "	1864	40 00
	John Conrad.....	" " " " " "	1865	40 00
	F. W. Prentiss.....	" " " " " "	1866	33 33
	W. Townshend.....	" " " " " "	1867	30 00
	Clarence Loveberry.....	" " " " " "	1868	25 00
	Edw. Stalter.....	" " " " " "	1869	20 00
	J. B. Parker.....	" " " " " "	1870	13 50
18	Maggie Zimmerman.....	1 week's services Dep. Dom. Sci.....	1871	3 00
27	M. Dresback.....	$\frac{1}{10}$ salary Nov. inst., 1897.....	1872	30 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Nov. 18	C. U. Telephone Co.....	Telephone service.....	1873	\$1 20
20	J. W. Coulson & Co.....	Painting and glazing.....	1874	300 00
	C. L. Wattering.....	Hauling brick.....	1875	30 90
22	W. C. Huff.....	41 hrs. brick work @ 15c.....	1876	6 15
	A. Sterner.....	18 hrs. carp. work @ 25c.....	1877	4 50
	Nick Wagner.....	55½ hrs. brick work @ 45c.....	1878	24 85
	A. H. Faulkner.....	72 " ".....	1879	32 40
	Leo. Beck.....	35 " ".....	1880	24 75
	Jake Lohrer.....	46½ hrs. brick work @ 35c.....	1881	16 35
	Chas. Rost.....	52 hrs. brick work @ 45c.....	1882	23 40
	H. L. Wiley.....	69 " ".....	1883	31 05
23	W. I. Chamberlain.....	Expenses at meeting this day.....	1884	13 95
26	F. M. Senter, P. M.....	500 2c. stamps.....	1885	10 00
	J. T. Mack.....	Exp board meeting, etc.....	1886	20 15
27	Wm. Weir.....	1 mo. salary.....	1887	20 00
	H. C. Kennedy, Supt.....	Pay roll, workmen.....	1888	3,486 35
	F. O. Clements.....	Acct. Nov. inst., salary.....	1889	10 00
	Maggie Zimmerman.....	Serv. domestic 1 week.....	1890	2 50
	A. V. Bleininger.....	November inst., scholarship, Ceramics.....	1891	20 00
29	H. E. Kennedy.....	Pay roll, workmen.....	1892	51 85
30	F. W. Prentiss, V. Pres.	Int. 150M. bonds payable U. S. Mtg. & T. Co., N. Y.....	1893	3,375 00
	F. W. Prentiss, V. Pres.	Int. on bonds due December 1, 1897.....	1894	4,650 00
	L. B. Wing.....	Expenses meeting since Jan. 4, 1897.....	1895	84 00
	Chas. Toole.....	4 days timekeeper Towns. Hall.....	1896	6 70
Dec. 1	Olive B. Jones.....	70 sal. Dec. inst., '97.....	1897	120 00
Nov. 30	H. J. Noyes.....	Salary for Nov. 1897.....	1898	166 66
Dec. 2	Maggie Zimmerman.....	1 week service Dept. Dom. Science.....	1899	3 00
	Lucy Allen.....	225 hrs. work @ 20c.....	1900	45 00
	Jas. Clark.....	Plastering.....	1901	552 48
	J. W. Coulson & Co.....	Painting and glazing.....	1902	1,150 00
	C. L. Wattering.....	Hauling brick.....	1903	21 50
	F. D. Cope.....	9 days' work @ \$1.50.....	1904	13 50
	G. R. Butler & Co.....	Mill work, etc.....	1905	2,000 00
6	C. E. Morris & Co.....	Hand power elevator.....	1906	140 00
	W. U. Teleg. Co.....	Message.....	1907	25
	A. S. W. Huffman.....	Steam fitting.....	1908	300 00
	R. A. McClure.....	Lumber.....	1909	140 77
	Kilbourne-Jones Co.....	Glass.....	1910	13 48
	M. J. Bergin Lumb. Co..	Lumber.....	1911	109 92
	Chas. Wuichet & Co.....	Tile roofing.....	1912	1,500 00
	Saunders & Esswein.....	Plumbing.....	1913	2,000 00
	Acme Paving Co.....	Material per contract.....	1914	1,069 30
	R. A. McClure.....	Mill work.....	1915	1,000 00
	C. O. Paper Co.....	Deadening felt.....	1916	7 05
	Taylor Mantel & G. Co..	Tile and mill work.....	1917	500 00
	Hayden, Min & Mfg. Co	Tile partition.....	1918	58 23
	New Lex. Press Bk. Co..	Error in freight charge.....	1919	7 73
	Gilsonitè Rf. & Pav. Co	Fire proof roofing, etc.....	1920	1,500 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897. Dec. 6	Engelke & Bigelow.....	Freight and hauling.....	1921	\$90 61
	C., S. & H. Ry. Co.....	" " switching.....	1922	155
	C. Durner.....	Sharpening tools.....	1923	14 60
	Climax Stone Co.	Stone.....	1924	84 05
	Col. Supply Co.....	Oil cans.....	1925	90
	F. Ward.....	Weighing sand.....	1926	1 50
	Tallmadge Hdw. Co.....	Hardware.....	1927	44 00
	Warthorst & Co.....	Brick ..	1928	250 00
	Standard Oil Co.....	Oils.....	1929	3 90
	Adam Wagner.....	Hoist and engine rent.....	1930	59 00
	Penna. Fuel Co.....	Hauling sand.....	1931	97 80
	Pedrick & Ferris.....	Mortar.....	1932	425 92
	Homegardner Sand Co..	Sand.....	1933	13 93
	Buckeye Press Brick Co	Brick.....	1934	43 00
	C., A. & C. Ry. Co.....	Freight.....	1935	84 58
	H. E. Kennedy. Supt....	Special pay roll.....	1936	325 95
	Fultonham Brick Co.....	Common brick.....	1937	253 78
	W. U. Terra Cotta Co...	Terra cotta.....	1938	227 81
	L. Schreiber Sons Co...	Structural iron.....	1939	1,000 00
	J. C. Hearn & Co.....	Friction clamps, etc.....	1940	6 50
	White & Pixley.....	Elect. work.....	1941	600 00
	F. O. Schoedinger.....	Tile wk., galv. iron, etc.....	1942	1,942 93
	Fish Stone Co.....	Stone.....	1943	32 35
	Ruggles-Gale Co.....	Stationery.....	1944	1 85
	Fitzpatrick & Hoepfuer	Plumbing.....	1945	1,200 00
	W. U. Telegraph Co.....	Telegrams.....	1946	2 80
	C. E. Morris & Co.....	Iron.....	1947	5 00
	Lawrence Press Co.....	Stationery.....	1948	10 20
	Schoedinger Fearn & Co	Hardware.....	1949	46 94
	C. U. Telephone Co.....	Service.....	1950	95
	T. J. Dundon & Co.....	Lumber.....	1951	988 97
	A. H. McIntyre.....	28 3-11 hrs. elect wk. @ 10c...	1952	2 87
	M. C. Hunter.....	10½ " " " " " "	1953	1 05
	J. R. Spurrier.....	82 hrs. wk. @ 20c.....	1954	16 40
	D. R. Starbuck.....	43½ " " 10c.....	1955	4 35
	O. A. Davis.....	92½ " " 12½c.....	1956	16 14
	C. E. Lee.....	40½ " " 10c.....	1957	4 05
	A. T. Kaseley.....	31½ " " 12½c.....	1958	3 91
	J. S. Farsons.....	27 hrs. grading @ 12½c.....	1959	3 38
	E. E. Fisher.....	57 " " " " " "	1960	7 13
	E. C. Colton.....	62 " " " " " "	1961	7 75
	A. D. Mason.....	22½ " " " " " "	1962	2 82
	B. W. Hershey.....	59 " " " " " "	1963	7 38
	T. H. Snyder.....	50 " " " " " "	1964	6 25
	W. Gilmore.....	43 " " " " " "	1965	5 38
	B. C. Sanders.....	22 " " " " " "	1966	2 75
	H. L. Beiden.....	43 " " " " " "	1967	5 36
	J. G. Ridinger.....	50 " " " " " "	1968	6 25
	F. C. Kettler.....	40 " " " " " "	1969	5 00
	F. W. Bunker.....	31 " " " " " "	1970	3 88
	D. W. Galehouse.....	26 " " " " " "	1971	3 25
	C. H. Clevenger.....	70 " " " " " "	1972	8 75
	E. S. Ream.....	79 " " " " " "	1973	9 88
	A. F. Wilcox.....	243 " " 15c.....	1974	36 45
	M. J. Marion.....	37 " " 12½c.....	1975	4 63

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STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Dec. 6	E. Thornberg.....	51 hrs. grading @ 12½c.....	1976	\$6 38
	R. S. Peters.....	27 " " 12½c.....	1977	3 38
	F. Rubins.....	36 " " 12½c.....	1978	4 50
	H. J. Hammond.....	11 " " 12½c.....	1979	1 38
	R. E. Whiting.....	61 " " 12½c.....	1980	7 63
	F. W. Ditto.....	9 " " 12½c.....	1981	1 13
	A. F. Conradi.....	32 " " 12½c.....	1982	4 00
	C. W. Breese.....	18 " " 12½c.....	1983	2 25
	J. A. Thompson.....	131 " " 12½c.....	1984	16 38
	H. Huff.....	24 " " 12½c.....	1985	3 00
	Jay Palmer.....	47 " " 12½c.....	1986	5 88
	W. T. Kelley.....	45 " " 12½c.....	1987	5 63
	W. Chantler.....	63 " " 12½c.....	1988	7 88
	T. S. Aten.....	14 " " 12½c.....	1989	1 75
	Champlin Ptg. Co.....	Blanks, cards, etc.....	1990	65 95
7	H. Haerlein.....	Services as L. S. gardner.....	1991	19 80
	H. H. Loomis.....	14 hrs. camp work @ 12½c.....	1992	1 75
	E. A. Marsh.....	80½ " " 20c.....	1993	16 10
	S. Teter.....	9 " " 12½c.....	1994	1 13
	J. C. Perry.....	65 " " 12½c.....	1995	8 13
	J. C. Britton.....	59 " " 15c.....	1996	13 35
	Library Bureau.....	Library supplies.....	1997	16 59
	Jas. Penn.....	Hauling.....	1998	2 00
	H. H. Ballard.....	1 sample box.....	1999	75
	Boston Book Co.....	Books.....	2000	43 00
	Burrows Bros. Co.....	".....	2001	102 70
	J. M. Hipple.....	23½ hrs. work @ 10c.....	2002	2 32
	Office Spec. Mfg. Co.....	1 index cabinet, etc.....	2003	6 25
	E. Rath.....	Living age index.....	2004	10 00
	G. G. Leinbaugh.....	12 hrs. work @ 10c.....	2005	1 20
	J. H. Hertner.....	25 " " 10c.....	2006	2 55
	O. B. Jones.....	Paper knives, etc.....	2007	4 00
	G. E. Stechert.....	Books, periodicals.....	2008	96 93
	W. U. Teleg. Co.....	Messages.....	2009	2 15
	Alexis Cope.....	Exp. to Circleville, Page will case.....	2010	
	C. O. Oil Co.....	1 barrel oil.....	2011	9 97
	McAllister, Mohler & Co.....	Office furniture.....	2012	30 50
	Standard Oil Co.....	Oils.....	2013	31 50
	Webb Sta. & Ptg. Co.....	Office stationery.....	2014	5 25
	Smith P. T. Writer Co.....	2 typewriters, etc.....	2015	52 85
	C. O. Paper Co.....	Note paper.....	2016	1 25
	L. McCormick.....	1 picture frame.....	2017	21 50
	W. C. Wren, Adj. 17th..	Band service, prize drill.....	2018	20 00
	Col. Street Ry. Co.....	1 large car No. 293.....	2019	8 00
	R. J. West.....	82½ hrs. guide work @ 12½c.....	2020	10 25
	R. J. Seymour.....	90 " " 12½c.....	2021	11 25
	Franklin Fuel Co.....	Coal del. Nov., 1897, anthra- cite.....	2022	82 07
	E. A. Cole & Co.....	Coal, smithing.....	2023	3 03
	Murray City Coal Co.....	Coal del. Nov., '97.....	2024	574 24
	Col. Sewer Pipe Co.....	Sewer pipe.....	2025	5 58
	Col. Brass Co.....	Couplings.....	2026	60
	Penn Fuel Co.....	Sand.....	2027	5 11
	Buckeye Leather Co.....	1 strip hemlock.....	2028	50

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Dec. 7	Wassall Fire Clay Co ...	Paving blocks.....	2029	\$20 74
	Kelton & Converse	Lumber.....	2030	7 93
	Schiff, Jordon & Co.....	Carbons.....	2031	22 94
	H. Cole	Blue print paper.....	2032	80
	Taylor Mantel & G. Co....	1 piece oak	2033	75
	Fish Press Brick Co	Filters, President's House	2034	2 00
	J. L. D. Nichols	1 day's work @ \$1.50.....	2035	1 50
	C. Loveberry	600 trays, etc	2036	6 00
	Thos. Bonde.....	30 days as fireman @ \$1.50	2037	45 00
	J. Stainbrook	30 "	2038	45 00
	J. P. Friez.....	Instruments.....	2039	30 50
	Z. L. White & Co.....	5c. cloth	2040	50
	Bissell, Dodge & E. Co.	Electrical supplies.....	2041	4 89
	S. S. Freeman	Drawing materials.....	2042	2 55
	Nitschke Bros.....	2,000 tickets	2043	3 75
	Ruggles-Gale Co	Pens, ink, etc.....	2044	2 50
	C. O. Paper Co.....	Sheathing.....	2045	1 38
	The Peoples' Store.....	1 screen, 1 glass	2046	7 00
	Pratt Institute.....	4 meat charts.....	2047	10 00
	J. H. Randall.....	9 hours carp. work @ 25c	2048	2 25
	G. F. Wheeler	Groceries, Lab. Dom. Science	2049	10 93
	P. G. Bowman	Groceries, etc	2050	2 20
	Sam Smith	Groceries, Lab. Dom. Science	2051	8 95
	Bradley, Munk & Co.....	Supplies, "	2052	134 57
	Bausch Lomb Opt. Co....	Microscopes.....	2053	151 40
	Payne, McDonald Co....	Hardware	2054	26 71
	E. L. Fullmer	81 hours work @ 15c.....	2055	12 15
	A. H. Smythe.....	1 roll stencil paper, etc	2056	2 35
	W. A. Kellerman.....	Department supplies	2057	21 25
	A. R. Campbell.....	10 hours work @ 20c.....	2058	2 00
	John McAllister	39 hours work @ 15c.....	2059	5 85
	Tallmadge Hdw. Co.....	Hardware	2060	2 93
	Borger Bros & Co	Repairs on ladle, etc.....	2061	2 50
	Pickering Hdw. Co	Rules, etc	2062	24 12
	E. A. Kinsey Co.....	Tools, etc	2063	116 82
	P. Hayden S. H. Co	Pig iron, etc	2064	67 21
	W. W. Wight.....	Materials, slating, etc.....	2065	2 50
	Chicago Brass Co.....	Brass.....	2066	1 00
	J. A. Fay & Egan Co....	Saw blades, etc.....	2067	1 00
	Blackwood, Green & Co.	Galvanized iron, etc	2068	22 29
	E. E. Graham	14 hrs. in foundry @ 15c.....	2069	2 10
	W. Erdman	42 hrs. work @ 17½c	2070	7 35
	J. H. Nold.....	46 " 15c.....	2071	6 90
	E. H. Bailey	58 " 15c.....	2072	8 70
	H. Graham	24 " 15c.....	2073	3 60
	H. Gamper	96 " 15c.....	2074	14 40
	J. H. Lesh.....	18 " 15c.....	2075	2 70
	H. Braun Sons & Co.....	Oils, etc.....	2076	2 35
	D. Singleton	1½ day's work with helper.....	2077	7 50
	Nitschke Bros.....	Stationery.....	2078	5 70
	Kilbourne & J. Mfg. Co.	Repairing Plow	2079	75
	F. S. Johnston.....	108 hour's steno. @ 12½c	2080	13 50
	John Dewey & Co.....	Posts and braces.....	2081	10 00
	J. F. Williams & Sons...	2,000 barrels gluten meal	2082	12 00
	Nitschke Bros.....	Letter heads, etc	2083	11 25

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897. Dec. 7	H. Long.....	Fencing, etc.....	2084	\$28 30
	A. F. Hall.....	1 mo. work.....	2085	60 00
	E. W. Dean.....	11 hours work @ 15c.....	2086	1 65
	E. H. Bailey.....	18 hours work @ 15c.....	2087	2 70
	Kelton & Converse.....	Lumber.....	2088	1 32
	Engelke & Bigelow.....	Labor placing heater.....	2089	5 00
	D'Este & Seeley.....	Steam trap.....	2090	21 00
	T. J. Dundon & Co.....	Lumber.....	2091	2 92
	Cap. City Mch. Wks.....	Mch. steel, etc.....	2092	2 26
	Bo ger Bros. & Co.....	1 steel box.....	2093	8 75
	H. Cole.....	2 pencil leads.....	2094	1 75
	W. H. Miller.....	1 Crosby indicator.....	2095	35 00
	J. H. Lesh.....	5 hours work @ 15c.....	2096	70
	C. M. Ruhlen.....	3 ".....	2097	45
	C. J. Morrow.....	9 hours work @ 12½c.....	2098	1 13
	F. J. Hale.....	9 hours work @ 15c.....	2099	1 35
	D. W. Galehouse.....	4½ hours work @ 12½c.....	2100	56
	The Lunkenheimer Co.	Valves, etc.....	2101	10 49
	The Ashton Valve Co.	".....	2102	25 30
	Tallmadge Hardware Co	Hardware.....	2103	6 70
	Riehle Bros.....	1 gear guard.....	2104	1 25
	Thompson & Bushnell..	1 reducing wheel.....	2105	16 50
	Col. Supply Co.....	Pipe and fittings.....	2106	7 56
	Simmons Hardware Co.	Hardware.....	2107	26 47
	Rochester Opt. Co.....	Photo app.....	2108	30 60
	Blackwood, Green & Co	Scrap copper.....	2109	2 50
	Green, Joyce & Co.....	Towels.....	2110	7 50
	Seraphim Blank Bk. Co.	300 books.....	2111	57 00
	Kauffman-Lattimer Co.	Chemicals, etc.....	2112	160 23
	Kimball & Mathews.....	Photo supplies.....	2113	3 48
	Howe Scale Co.....	3,000-lb Bullock scale, etc.....	2114	215 34
	W. Chantler.....	180.6 hrs. work @ \$1.50.....	2115	2 40
	Col. Mantel Tile & M.Co	Slate, etc.....	2116	1 50
	G. E. Stechert.....	Books.....	2117	8 15
	North Side Ice Co.....	Ice.....	2118	1 50
	T. E. French.....	Labeling cases, etc.....	2119	14 50
	J. V. Denney.....	Cash paid Stevensons works..	2120	15 00
	Col. Gas Co.....	Coke, etc.....	2121	11 00
	C. G. Newton & Co.....	Special steel tape.....	2122	15 00
	Cap. City Mch. Wks.....	Castings, etc.....	2123	3 25
	G. E. Bell.....	Library work.....	2124	14 50
	H. Braun Sons & Co.....	Glue, etc.....	2125	2 18
	J. G. Biddle.....	Instruments.....	2126	107 05
	Jeffrey Mfg. Co.....	Bal. due on machinery.....	2127	107 00
	Edw. Penrock.....	Resilvering mirror, etc.....	2128	1 91
	Niagara Clip Co.....	10 boxes clips.....	2129	1 50
	Richards & Co.....	Objectives.....	2130	88 20
	Engelke & Bigelow.....	Freight and cartage.....	2131	54 22
	Bissell, Dodge & E. Co.	Elec. supplies.....	2132	4 50
	Griswold, Sohl & Co.....	Iron supplies.....	2133	2 19
	McClelland & Co.....	Pencil, paper, etc.....	2134	4 10
	Schoedinger, Fearn & Co	Hardware.....	2135	1 00
	Std. Underg'd Cable Co.	Cable reel, etc.....	2136	47 25
	J. M. & W. Westwater...	1 glass punch bowl.....	2137	4 50
	Tallmadge Hdw. Co.....	Hardware.....	2138	8 56

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897. Dec. 7	Col. Rubber & B. Co.....	Pipe, etc.....	2139	\$356 56
	Paul System Co.....	Angle cocks, etc.....	2140	17 60
	New Col. Bridge Co.....	Metal work.....	2141	16 95
	Blackwood, Green & Co	Hardware.....	2142	44 75
	Col. Supply Co.....	Pipe and fittings.....	2143	106 56
	Post-Glover Elec. Co.....	Conduits.....	2144	47 17
	M. P. Streett.....	Brick, etc.....	2145	170 02
	C. H. Woodruff.....	Carpenter work.....	2146	63 49
	J. Garretson.....	21 days @ \$1.50.....	2147	31 50
	H. Chantler.....	11 ".....	2148	17 55
	L. R. Krumm.....	39½ hours work @ 10c.....	2149	3 95
	E. G. Webster.....	63½ hours work @ 12½c.....	2150	7 93
	W. E. Chappell.....	Elect. work.....	2151	13 64
	R. E. McIntosh.....	62 hours @ 10c.....	2152	6 20
	F. L. Estep.....	Elect. work.....	2153	1 05
	William Case.....	Labor, eng. department.....	2154	40 50
	M. Peck.....	Labor, steam fitter.....	2155	43 50
	J. H. Randall.....	Carpenter work.....	2156	22 00
	M. Staley.....	9 hours work @ 10c.....	2157	90
	A. E. Loeb.....	76½ hours work @ 17½c.....	2158	13 39
8	D. M. Massie.....	Expense trustees, July 1 to date.....	2159	23 55
9	Maggie Zimmerman.....	1 week's service department Dom. Science.....	2160	3 00
10	H. E. Kennedy.....	Service as superintendent.....	2161	350 00
11	Hall, Carlile & B.....	Lath.....	2162	47 52
	H. E. Kennedy, Supt.....	Pay roll for workmen.....	2163	2,259 60
	W. U. Telegraph Co.....	Messages.....	2164	2 84
14	Col. Gas Co.....	Gas for November, 1897.....	2165	140 47
15	J. F. Marion.....	13¾ hours brick work @ 45c.....	2166	6 20
	Saunders & Esswein ..	Plumbing.....	2167	675 00
	H. A. Weber.....	10 salary Dec. inst., 1897.....	2168	225 00
18	A. M. Bleile.....	" ".....	2169	225 00
	W A Kellerinam.....	" ".....	2170	225 00
	C. N. Brown.....	" ".....	2171	225 00
	A. C. Barrows.....	" ".....	2172	225 00
	Edw. Orton.....	" ".....	2173	225 00
	E. A. Eggers.....	" ".....	2174	225 00
	J. R. Smith.....	" ".....	2175	225 00
	G. W. Knight.....	" ".....	2176	225 00
	W. A. Lazenby.....	" ".....	2177	225 00
	S. C. Derby.....	" ".....	2178	225 00
	R. D. Bohannan.....	" ".....	2179	225 00
	W. T. Magruder.....	" ".....	2180	225 00
	J. P. Gordy.....	" ".....	2181	225 00
	W. H. Scott.....	" ".....	2182	225 00
	B. F. Thomas.....	" ".....	2183	225 00
	J. V. Denney.....	" ".....	2184	225 00
	B. L. Bowen.....	" ".....	2185	225 00
	D. S. Kellicott.....	" ".....	2186	225 00
	A. L. Williston.....	" ".....	2187	225 00
	N. W. Lord.....	" ".....	2188	200 00
	G. B. Kauffman.....	" ".....	2199	200 00
	W. McPherson.....	" ".....	2190	200 00
	F. A. Ray.....	" ".....	2191	200 00

ANNUAL REPORT

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897. Dec. 18	Edw. Orton, Jr.....	Salary Dec. inst., 1897.....	2192	\$180 00
	J. N. Bradford.....	" " " " " " " "	2193	180 00
	G. W. McCoard.....	" " " " " " " "	2194	160 00
	H. C. Lord.....	" " " " " " " "	2195	150 00
	E. A. Hitchcock.....	" " " " " " " "	2196	150 00
	W. D. Gibbs.....	" " " " " " " "	2197	140 00
	P. G. Bowman.....	" " " " " " " "	2198	140 00
	F. C. Caldwell.....	" " " " " " " "	2199	140 00
	D. S. White.....	" " " " " " " "	2200	140 00
	S. A. Norton.....	" " " " " " " "	2201	120 00
	R. I. Fulton.....	" " " " " " " "	2202	120 00
	J. E. Boyd.....	" " " " " " " "	2203	110 00
	C. E. Sherman.....	" " " " " " " "	2204	100 00
	T. E. French.....	" " " " " " " "	2205	100 00
	C. W. Mesloh.....	" " " " " " " "	2206	100 00
	F. C. Clark.....	" " " " " " " "	2207	100 00
	W. H. Siebert.....	" " " " " " " "	2208	100 00
	A. N. Hodgman.....	" " " " " " " "	2209	100 00
	J. R. Taylor.....	" " " " " " " "	2210	100 00
	J. A. Bownocker.....	" " " " " " " "	2211	90 00
	W. A. Knight.....	" " " " " " " "	2212	90 00
	C. W. Weick.....	" " " " " " " "	2213	90 00
	C. C. Steffel.....	" " " " " " " "	2214	90 00
	C. W. Foulk.....	" " " " " " " "	2215	85 00
	C. L. Arnold.....	" " " " " " " "	2216	85 00
	K. D. Swartzel.....	" " " " " " " "	2217	85 00
	C. A. Dye.....	" " " " " " " "	2218	85 00
	J. S. Hine.....	" " " " " " " "	2219	85 00
	J. H. Schaffner.....	" " " " " " " "	2220	80 00
	C. Wiseler.....	" " " " " " " "	2221	80 00
	W. L. Graves.....	" " " " " " " "	2222	80 00
	C. A. Bruce.....	" " " " " " " "	2223	80 00
	C. W. Burkett.....	" " " " " " " "	2224	75 00
	W. F. Lavery.....	" " " " " " " "	2225	70 00
	F. Haas.....	" " " " " " " "	2226	70 00
	A. E. Vinson.....	" " " " " " " "	2227	65 00
	F. L. Landacre.....	" " " " " " " "	2228	65 00
	E. M. Van Harlingen.....	" " " " " " " "	2229	60 00
	T. K. Lewis.....	" " " " " " " "	2230	60 00
	E. E. Harrold.....	" " " " " " " "	2231	70 00
	H. Townshend.....	" " " " " " " "	2232	55 00
	F. E. Kester.....	" " " " " " " "	2233	55 00
	Maude Jeffrey.....	" " " " " " " "	2234	50 00
	Gertrude Kellicott.....	" " " " " " " "	2235	50 00
	W. L. Evans.....	" " " " " " " "	2236	40 00
	J. T. Martin.....	" " " " " " " "	2237	40 00
	J. R. Spurrier.....	" " " " " " " "	2238	35 00
	H. W. Kuhn.....	" " " " " " " "	2239	30 00
	H. Judd.....	" " " " " " " "	2240	30 00
	J. H. Fox.....	" " " " " " " "	2241	30 00
	J. F. Cunningham.....	" " " " " " " "	2242	30 00
	J. G. Boyd.....	" " " " " " " "	2243	25 00
	C. B. Frederick.....	" " " " " " " "	2244	25 00
	F. O. Clements.....	" " " " " " " "	2245	20 00
	R. Fischer.....	" " " " " " " "	2246	20 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Dec. 18	A. V. Bleininger.....	$\frac{1}{10}$ salary Dec. inst., 1897.....	2247	\$20 00
	T. F. Hunt.....	" " " ".....	2248	250 00
	F. W. Prentiss.....	Salary for December, 1897.....	2249	33 33
	C. Riddle.....	$\frac{1}{10}$ salary Dec. inst., 1897.....	2250	20 00
	O. A. Davis.....	" " " ".....	2251	10 00
	W. E. Chappell.....	" " " ".....	2252	10 00
	H. Gamper.....	" " " ".....	3253	10 00
	K. Nurian.....	" " " ".....	2254	10 00
	E. E. Sommermeier.....	" " " ".....	2255	10 00
	W. F. Hunter.....	" " " ".....	2256	250 00
	W. H. Page.....	" " " ".....	2257	100 00
	E. B. Kinkead.....	" " " ".....	2258	100 00
	D. F. Pugh.....	" " " ".....	2259	70 00
	E. O. Randall.....	" " " ".....	2260	65 00
	J. P. Jones.....	" " " ".....	2261	35 00
	G. W. Knight.....	" " " ".....	2262	25 00
	F. F. D. Albery.....	" " " ".....	2263	15 00
	J. H. Collins.....	" " " ".....	2264	10 00
	J. H. Canfield.....	Salary for December, 1897.....	2265	500 00
	Alexis Cope.....	" " " ".....	2266	187 50
	W. C. McCracken.....	" " " ".....	2267	125 00
	Jean Blackford.....	" " " ".....	2268	50 00
	Edith Cockins.....	" " " ".....	2269	54 17
17	W. I. Chamberlain.....	Expenses attending meeting this day.....	2270	12 65
18	C. B. Hine.....	Salary for December, 1897.....	2271	50 00
	C. Low.....	" " " ".....	2272	54 17
	M. H. Cook.....	Services as janitor.....	2273	15 00
	Wm. Standley.....	Salary for December, 1897.....	2274	45 00
	B. LeBay.....	" " " ".....	2275	45 00
	G. R. Rose.....	" " " ".....	2276	65 00
	J. H. Brown.....	" " " ".....	2277	45 00
	Mary H. L. Cope.....	" " " ".....	2278	50 00
	Jas. Kelly.....	" " " ".....	2279	41 67
	F. B. Brewer.....	" " " ".....	2280	40 00
	John Adams.....	" " " ".....	2281	40 00
	John Conrad.....	" " " ".....	2282	40 00
	C. Loveberry.....	" " " ".....	2283	25 00
	Edw. Stalter.....	" " " ".....	2284	20 00
	Wm. Weir.....	" " " ".....	2285	20 00
	J. B. Parker.....	" " " ".....	2286	13 50
	W. R. Beattie.....	" " " ".....	2287	54 17
	Arthur Chantler.....	" " " ".....	2288	45 00
	Wm. Whitestone.....	" " " ".....	2289	45 00
	Wash. Townsend.....	" " " ".....	2290	30 00
	W. B. Calkins.....	88 hours store room @ 15c.....	2291	13 20
	Maggie Zimmerman.....	2 weeks service Dep. Domestic Science.....	2292	6 00
1898.				
Jan. 10	Col. Brass Co.....	Castings, etc.....	2293	2 10
1897.				
Dec. 18	M. Dresback.....	$\frac{1}{10}$ salary Dec. inst., 1897.....	2294	30 00
	N. Tegnel.....	Work in Dep. Domestic Science.....	2295	1 50
	R. Fischer.....	Student Assistant, Gen'l Chem.....	2296	8 40
	B. Shirk.....	38 hours work @ 15c.....	2297	5 70

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Dec. 18	C. L. Wattering.....	Hauling brick.....	2298	7 00
	John McCarthy.....	33 hours work @ 15c.....	2299	4 95
20	W. L. Evans.....	On account salary.....	2300	28 00
	F. O. Clements.....	Work Dept. Chemistry.....	2301	5 00
	F. M. Senter, P. M.....	500 1c, 500 2c. stamps.....	2302	15 00
	L. B. Powell.....	Serv. as Quartermaster.....	2303	5 00
21	N. P. Oglesby.....	42 hours work @ 15c.....	2304	6 30
22	J. W. Coulson & Co.....	Painting and glazing.....	2305	400 00
	C. E. Barnett.....	1½ days work @ \$2.....	2306	3 00
	E. H. Bailey.....	33½ hours @ 15c.....	2307	5 03
23	F. W. Prentiss, Vice Pt.	Error in interest on bond transaction.....	2308	1 71
24	H. E. Kennedy, Supt....	Pay roll laborers new buildings.....	2309	2,041 55
	C. T. Morris.....	December inst., '97, McMillin Fellowship.....	2310	30 00
28	Adam Masterton.....	16 hours stone work @ 40c....	2311	6 40
	Wm. Halstead.....	16 " ".....	2312	6 40
	F. Lawwell.....	18 hrs. water carrier @ 11 1-9c	2313	2 00
	F. M. Senter, P. M.....	2000 1c stamps.....	2314	20 00
	H. J. Noyes.....	December salary, 1897.....	2315	166 66
	J. T. Mack.....	Expenses meeting December 17, 1897.....	2316	9 90
30	B. & O. R. R.....	Freight on Hippopotamus to Rochester.....	2317	5 48
1898.				
Jan. 3	Albert Russell.....	23 hours work @ 15c.....	2318	3 45
	C. H. Harris.....	45 " ".....	2319	6 75
	Albert Edwards.....	43½ hrs. brickwork @ 45c.....	2320	19 55
	B. Edwards.....	43½ " ".....	2321	19 55
4	F. Pursell.....	39½ " ".....	2322	17 75
	F. M. Senter, P. M.....	Stamps, 600 1c, 300 6c, 100 5c and 50 4c.....	2323	21 00
	F. M. Senter, P. M.....	500 1c, 500 2c, 100 5c. stamps...	2324	20 00
	Col. St. Ry. Co.....	Tickets, 5 packs.....	2325	5 00
5	E. A. Marsh.....	36 hours carpenter work, @ 20c.....	2326	7 20
	Jas. Clark.....	Plastering.....	2327	349 00
	Jas. L. Clark.....	Plastering Biological Building.....	2328	265 00
	W. H. Leete.....	Exp. Evans v. Board of Trustees.....	2329	50 00
	Maggie Zimmerman.....	2 wks. Dept. Dom. Science.....	2330	6 00
8	R. J. Seymour.....	118 hours guide work, @ 12½c.....	2331	14 75
	Col. Rubber & Belt. Co.	Pipe and fittings.....	2332	89 47
	Studer Bros.....	1 book.....	2333	22 50
	Library Bureau.....	Tables.....	2334	94 50
	Locomotive Engineer'g	1 copy "World's Railway".....	2335	7 50
	Burrows Bros. Co.....	Books.....	2336	24 27
	Am. Soc. Mech. Eng.....	Binding 1 book.....	2337	1 25
	The Kip Binder.....	5 boxes klips and postage.....	2338	2 59
	G. E. Stechert.....	Books.....	2339	292 78
	Hann & Adair.....	250 schedules.....	2340	3 50
	Benj. Rushmer.....	Blacksmithing.....	2341	47 40
	Blackwood, Green & Co	Hardware and supplies.....	2342	24 04

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Total.
1898.				
Jan. 8	Jacob Weisheimer	Feed	2343	\$11 30
	S. J. Nathans.	Prints	2344	4 25
	W. U. Teleg. Co.	Messages	2345	6 65
	Col. Calcium Light Co.	Gas, etc.	2346	6 25
	Cher'gton Ptg. & Eng. Co.	1 tube ink	2347	50
	Chas. Hansens' Labr.	Lactic ferment	2348	1 95
	India Alkali Works.	1 keg house savogran	2349	4 68
	C. H. Clevenger	33 hours work @ 12½c	2350	4 13
	J. C. Britton	27 " 15c	2351	4 05
	F. S. Johnson	165 " 12½c	2352	20 62
	G. A. Flickinger	13 " 15c	2353	1 95
	A. F. Wilcox	85 " 15c	2354	12 75
	H. L. Belden	50 " 12½c	2355	6 25
	Cap. City Mch. Works.	Materials and labor	2356	3 85
	John Kane	120 hours work @ 12½c	2357	15 00
	C. J. Morrow	17 " 12½c	2358	2 13
	Lucy Allen	150 " 20c	2359	30 00
	Alexis Cope	Cash advanced R. Leet, exp. Evans v. Trustees.	2360	26 85
	E. A. Cole & Co	Coal	2361	3 03
	H. E. Brown & Sons.	Slips, labels, etc.	2362	7 75
	McMillan Co.	1 Vine botany	2363	3 65
	Thos. Algeo	Work on buildings	2364	37 35
	Marion Peck	31 days @ \$1.50	2365	46 50
	H. Chantler	Work dairy department, etc.	2366	38 25
	C. H. Woodroff.	41 hours carpenter work @ 27½c	2367	11 38
	Kauffman, Lattimer Co.	Chemicals, etc.	2368	30 72
	Kimball & Matthews.	2 trays, etc	2369	1 74
	J. W. Coulson & Co.	Painting and glazing	2370	670 50
	M. J. O'Donnell & Co.	Repairs on electric switch	2371	23 25
	P. G. Bowman	Groceries	2372	2 33
	Henry Goldsmith.	Band instruments	2373	53 00
	Cap. City Mch. Works.	16 drawer locks	2374	1 60
	Wm. Summer	Belts	2375	5 00
	The Rob't Clarke Co.	Books	2376	10 00
	H. Braun Sons & Co.	Grinding and polishing in- struments	2377	2 60
	Bausch, Lomb Opt. Co.	Objectives	2378	7 20
	Hann & Adair	125 copies of 8 cuts	2379	2 40
	Harper Ills. Syn.	Cuts	2380	17 68
	Sparhawk & Detchon.	Feed	2381	21 95
	H. Braun, Sons & Co.	Instruments	2382	10 75
	H. E. Kennedy, Sup't.	Pay roll, workmen new build- ing	2383	1,290 85
	Cols. Rubber & Belt Co.	Hose, etc.	2384	7 50
	Cols. Dispatch	Advertising	2385	13 05
	W. H. Haskins	Advertising	2386	35 00
	Blackwood, Green & Co.	Hood on forge	2387	7 73
	Col. Supply Co	Pipe and fittings	2388	5 60
	J. C. Perry	82 hours work @ 12½c	2389	10 25
	J. C. Britton	41 hours camp work @ 15c	2390	6 15
	John Keller	Gravel screenings	2391	9 60

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Total.
1898.				
Jan. 8	E. L. Fullmer.....	46½ hrs. wk. @ 15c.....	2392	\$6 97
	L. C. Riddle.....	50 " ".....	2393	7 50
	A. S. W. Huffman.....	Plumbing, etc.....	2394	600 00
	W. U. Teleg. Co.....	Messages.....	2395	1 39
	Genl. Elect. Co.....	Lamps.....	2396	292 50
	C. Durner.....	Sharpening tools.....	2397	7 03
	H. Braun Sons & Co.....	Bottles.....	2398	20 18
	E. W. Vickers.....	2 weasels.....	2399	3 50
10	Bashford Dean.....	1 Ceratodus.....	2400	12 00
	D. S. Kellicott.....	Lab. expenses.....	2401	9 30
	Palmer Slide Co.....	2 gross slides, etc.....	2402	9 75
	Joe Garretson.....	21 days @ \$1.50.....	2403	31 50
	Thos. Boude.....	28 " ".....	2404	42 00
	C. Pixler.....	18 " ".....	2405	27 00
	Jas. Stainbrook.....	31 " ".....	2406	46 50
	W. Case.....	29 " ".....	2407	43 50
	Cherington Ptg. & Eng. Co.....	1 stamp.....	2408	25
	C. O. Paper Co.....	1 blank book, etc.....	2409	20 00
	Am. D. Teleg. Co.....	Rent 5 signal boxes.....	2410	19 40
	The Werner Co.....	50 cts. indebtedness.....	2411	50 00
	Library Bureau.....	Catalogue cards.....	2412	3 00
	Pancoast Vent. Co.....	2 ventilators.....	2413	2 00
	C. O. Oil Co.....	Oils.....	2414	10 07
	Hasbrook & Byers.....	2 lantern globes.....	2415	30
	W. U. Teleg. Co.....	Messages.....	2416	2 09
	Webb Sta. & Ptg. Co.....	1 blank book, etc.....	2417	16 85
11	Col. Wire and Iron Wks.	2 wire mats.....	2418	12 00
	P. F. Yoerger.....	Lettering doors.....	2419	7 50
	Glock & Beck.....	2 sets Paul's ink.....	2420	2 00
	A. D. Teleg. Co.....	Messenger service.....	2421	75
	C. U. Telephone Co.....	Telephone service.....	2422	64 90
	Col. St. Ry. Co.....	Chartering 4 cars.....	2423	24 00
	H. Braun Sons & Co.....	5 gals. lard oil.....	2424	3 25
	Tracy-Wells Co.....	Brooms, sponges, etc.....	2425	25 66
	G. T. Johnson.....	2 cases toilet paper.....	2426	20 00
	F. R. West.....	79 hours guide work @ 12½c.....	2427	9 87
	C. W. Woodruff.....	Account desk, locks, etc.....	2428	24 48
	J. A. Thompson.....	94 hours grading @ 12½c.....	2429	11 75
	Ohio Pipe Co.....	Iron threshers.....	2430	9 80
	Engelke & Bigelow.....	Freight and hauling.....	2431	2 15
	Col. Wire & Iron Wks.	Wire stall guards.....	2432	7 50
	Diebold Safe and Lock Co.....	Vault door.....	2433	47 50
	R. A. McClure.....	Mill work.....	2434	250 00
	Saunders & Esswein.....	Plumbing.....	2435	2,000 00
	C. H. Lyon.....	Vault door, hauling.....	2436	35
	Chas. Wuichet & Co.....	On account contract, sheet metal.....	2437	772 40
	W. J. Means, M. D.....	Surgical attention.....	2438	5 00
	E. S. Ream.....	42 hrs. grading @ 12½c.....	2439	5 25
	C. H. Clevenger.....	51½ " ".....	2440	6 44
	W. Chantler.....	108 " ".....	2441	13 50
	R. E. Whiting.....	45½ " ".....	2442	5 69
	F. C. Kettler.....	18 " ".....	2443	2 25

STATEMENT II--Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Jan. 11	A. F. Wilcox.....	135 hours work @ 15c.....	2444	\$20 25
	Jay Palmer.....	9 hrs. wk. @ 12½c, Towns. Hall	2445	1 13
	A. H. Snyder.....	17 hours work @ 12½c.....	2446	2 13
	W. Gilmore.....	13½ " " ".....	2447	1 69
	W. L. Kelly.....	34 " " ".....	2448	4 25
	J. Cain.....	20½ " " ".....	2449	2 56
	C. Thornburg.....	24 " " ".....	2450	3 00
	B. C. Sanders.....	13 " " ".....	2451	1 63
	H. L. Belden.....	46½ " " ".....	2452	5 81
	E. C. Cotton.....	21 " " ".....	2453	2 63
	H. J. Hammond.....	33½ " " ".....	2454	4 16
	J. G. Ridinger.....	8 " " ".....	2455	1 00
	W. Gilmore.....	16 " " ".....	2456	2 00
	E. Fisher.....	34 " " ".....	2457	4 25
	H. Haerlein.....	Serv. as landscape gardener...	2458	56 10
	J. J. Murray & Co.....	Lamps.....	2459	22 61
	P. R. Hord.....	9 hrs. elec. light work.....	2460	90
	H. E. Kennedy, Supt...	Salary for December, etc.....	2461	353 77
	V. Young.....	20 hrs. carp. work @ 15c.....	2462	3 00
	J. Hertner.....	12 hrs. elect. work @ 10c.....	2463	1 20
	W. E. Chappell.....	38 " " 15c.....	2464	4 95
	J. M. Hipple.....	33½ " " 10c.....	2465	3 35
	E. G. Webster.....	73½ " " 12½c.....	2466	9 22
	O. A. Davis.....	231½ " " 17½c.....	2467	40 47
	R. E. McIntosh.....	Electric work.....	2468	8 47
	L. B. Powell.....	45½ hrs. elect. work @ 10c.....	2469	4 55
	R. R. Dunlap.....	21½ " " 10c.....	2470	2 15
	R. Butterworth.....	21½ " " 10c.....	2471	2 15
	F. O. Schoedinger.....	Galv. iron and roofing.....	2472	1,765 00
	Schoedinger, Fearn & Co	Hardware.....	2473	11 47
	Schoedinger, Fearn & Co	".....	2474	7 42
	Tallmadge Hdw. Co.....	".....	2475	47 83
	C. C., C. & St. L. Ry. Co	Car service.....	2476	1 00
	J. C. Hearn & Co.....	Iron.....	2477	7 60
	C., S. & H. Ry. Co.....	Freight, etc.....	2478	61 01
	Buckeye Brick Co.....	Press brick.....	2479	39 88
	Fultonham Brick Co.....	Common brick.....	2480	110 11
	Fish Stone Co.....	Flag stone.....	2481	9 42
	Penna. Fuel Co.....	Cement and coke.....	2482	184 02
	L. Schreiber Sons Co...	Iron.....	2483	1,272 17
	W. Caldwell.....	Lumber.....	2484	1,500 00
	Warthorst & Co.....	Press brick.....	2485	87 82
	Haydenville Min. Co.....	Tile partition.....	2486	75 00
	Gilsonite Roof & Pav. Co	Fire proofing.....	2487	1,050 53
	Bissell, Dodge & E. Co.	Elec. supplies.....	2488	19 17
	Engelke & Bigelow.....	Freight and hauling.....	2489	115 73
	Tallmadge Hdw. Co.....	Hardware.....	2490	7 29
	E. J. Waring.....	1 desk lamp.....	2491	3 00
	Post Glover Elec. Co.....	Switches and receptacles.....	2492	27 60
	Stand Underg'd Cable Co	Cables.....	2493	79 00
	Kelton & Converse.....	Lumber.....	2494	5 45
	J. H. Randall.....	Carp. work.....	2495	6 75
	C. H. Woodruff.....	".....	2496	35 13
	Pedrick & Ferris.....	Mortar.....	2497	140 27
	J. R. Spurrier.....	119 hrs. elect. work @ 20c.....	2498	23 80

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Jan. 8	C. H. Crumley.....	18 hours work @ 10c.....	2499	\$1 80
	L. R. Krumm.....	38 ".....	2500	3 80
	H. S. Green.....	32½ ".....	2501	3 23
	M. Staley.....	14½ ".....	2502	1 45
	A. D. Morley.....	Carpenter work.....	2503	14 00
	Col. Supply Co.....	Pipe and fittings.....	2504	98 63
	Cap. City Mch. Wks.....	Shafting, couplings, etc.....	2505	559 79
	Tallmadge Hdw. Co.....	Hardware.....	2506	9 16
	T. J. Dundon & Co.....	Lumber.....	2507	89 88
	Lawrence Press Co.....	Office stationery.....	2508	2 15
	Minnie Rodgers.....	Typewriting.....	2509	46 80
	Blackwood, Green & Co.....	Brushes and brooms.....	2510	3 20
	Orr, Brown & Price.....	Muriatic acid.....	2511	2 27
	C. O. Paper Co.....	Deadening felt.....	2512	50 33
	Champion Iron Co.....	Structural iron.....	2513	2,800 00
	White & Pixley.....	Elect. work.....	2514	150 00
	Fitzpatrick & Hoepfner.....	Plumbing.....	2515	900 00
	W. U. Telegraph Co.....	Service.....	2516	2 24
	Kilbourne-Jones Co.....	Glass, hdw., etc.....	2517	768 49
	Taylor, Maniel & G. Co.....	Tile and mill work.....	2518	342 50
	Acme Paving Co.....	Laying cement floor.....	2519	1,252 39
12	C. U. Telephone Co.....	Service.....	2520	16 50
	C. E. Morris & Co.....	Hand power elevator.....	2521	25 00
	D. C. Beggs & Co.....	Window shades.....	2522	150 00
	Saunders & Esswein.....	Plumbing.....	2523	600 00
	G. R. Butler & Co.....	Mill work.....	2524	2,200 00
	Laidlaw Dunn & G. Co.....	1 steam pump.....	2525	50 00
	M. P. Street.....	Mason work on engine.....	2526	19 00
	Cap. City Mch. Wks.....	Pulleys, etc.....	2527	2 87
	Whitman & Couch.....	1 L. H. receiver.....	2528	3 50
	Wm. Sumner.....	Belting.....	2529	5 00
	Herman Baker & Co.....	Resistance wire and ribbon.....	2530	2 76
	Tinius, Olsen & Co.....	Steel points, etc.....	2531	5 00
	Cap. City Mch. Wks.....	Belts, pulleys, etc.....	2532	13 67
	T. J. Dundon.....	Lumber.....	2533	5 62
	T. T. Tress.....	2d hand timer.....	2534	4 00
	Tallmadge Hdw. Co.....	Hardware.....	2535	96
	New Col. Bridge Co.....	Angle rods.....	2536	8 00
	Crosby Steam Gauge Co.....	Gauges, etc.....	2537	59 65
	Simmons Hdw. Co.....	Hardware.....	2538	75
	P. Hayden S. H. Co.....	Iron, etc.....	2539	3 60
	H. Oram.....	Scale.....	2540	2 00
	Krauss, Butler & B. Co.....	Shades.....	2541	2 30
	W. H. Gilmore.....	14 hours work @ 12½c.....	2542	1 75
	Col. Supply Co.....	Pipe and fittings.....	2543	45 39
	P. A. Hord.....	5 hours work @ 12½c.....	2544	63
	M. Cook.....	88 ".....	2545	11 00
	J. Cain.....	3 ".....	2546	38
	M. C. Hunter.....	9 hours elect. work @ 10c.....	2547	90
	E. H. Bailey.....	9 hours work @ 15c.....	2548	1 35
	Sherwood Mfg. Co.....	Repairs on cleaner.....	2549	3 51
	Burgess Sold. Furn. Co.....	Repairs on rubber bulb.....	2550	60
	P. Hoerlein.....	1 boiler tube cleaner.....	2551	12 50
	Jeffery Mfg. Co.....	Couplings.....	2552	5 00
	Paul System Co.....	Repairs reducing valve.....	2553	5 50

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898. Jan. 12	Blackwood, Green & Co.	Hardware	2554	\$6 61
	Ch'gton Ptg. & Eng. Co.	1 stamp	2555	*80
	R. H. Brown & Co.....	Cutters	2556	32
	Col. Paint Mfg. Co.....	1 duster.....	2557	95
	F. Charles.....	Hauling.....	2558	1 25
	West'ghouse Glass Pty.	Arc globes.....	2559	9 00
	D'Este & Seeley Co.....	1 trap and floats	2560	22 10
	L. S. Wells	Paper hanging.....	2561	24 75
	Blackwood, Green & Co.	Galv. iron, etc.....	2562	24 39
	F. O. Schoedinger.....	Repairs on roof Chem. hall	2563	1 55
	Yale & T. Mfg. Co.....	Locks	2564	4 95
	Stitt, Price & Co	Cement	2565	2 00
	Jeffrey Mfg. Co.....	Couplers	2566	1 00
	Murphy Iron Wks	12 ratchet pawls.....	2567	2 40
	A. E. Loeb	Elect. plant work.....	2568	9 71
	C. A. Grate.....	6½ hrs. wk. @ 15c.....	2569	98
	D. Y. Murdoch	Adv.	2570	10 00
	Champlin Ptg. Co.....	Blanks, cards, etc	2571	4 75
	Enquirer Co.....	Adv.	2572	16 65
	Leader Ptg. Co	"	2573	10 40
	Investor Pub. Co	"	2574	5 00
	O. S. Journal Co.....	"	2575	12 75
	Hann & Adair.....	Com. prog, etc.....	2576	37 25
	Toledo Com'l.....	Adv.	2577	16 00
	The Lantern	"	2578	85 00
	G. E. Stechert.....	1 book	2579	3 13
	Lawrence & Greenwald	1,000 report slips	2580	2 00
	L. E. Barringer.....	8 hrs. work @ 12½c.	2581	1 00
	Kelton & Converse	Lumber	2582	1 60
	Krauss, Butler & Co.....	1 shade.....	2583	2 15
	Edw. Orton, Jr.....	Cash adv. J. McAllister	2584	1 70
	Standard Oil Co.....	Gasoline	2585	24 51
	Moonstone C. Slate Co..	Refilling case, etc.....	2586	1 70
	Col. Rub. & Belting Co.	Belt, etc	2587	2 14
	Eldridge & H. Co.....	1 No. 5 Ent. coffee mill.....	2588	6 80
	Fish Stone Co.....	Saw blades, etc.....	2589	75
	Penn. Fuel Co.....	Coal.....	2590	2 10
	P. Hayden Co.....	Lab. and mat'l changing brick ties	2591	24 85
	Tallmadge Hdw. Co.....	Hardware	2592	2 73
	F. Charles.....	Hauling.....	2593	2 00
	B. F. Goodrich Co.....	6 gaskets	2594	4 80
	J. McL. Smith.....	Exp. meetg. Nov. 23 to Jan. 12, '98	2595	11 20
14	T. J. Godfrey.....	Exp. meetg. and in Evans case	2596	34 20
12	W. I. Chamberlain.....	Exp. meetg. Jan. 12, 1898.....	2597	7 60
13	B. Fahmer.....	19 hrs. stone wk. @ 17½c.....	2598	3 30
	Maggie Zimmerman.....	1 wk. dep. dom. science.....	2599	3 00
	A. F. Hall.....	1 mo. salary, Dec., '97	2600	60 00
14	J. P. Shannon.....	54 hrs. carp wk. @ 25c	2601	13 50
	E. Hiatt.....	54	2602	13 50
	H. Cummins	44½ hrs. stone work @ 17½c.....	2603	7 80
	Tom McCoy.....	53 hrs. carp. wk. @ 15c.....	2604	7 95
	I. Smith.....	Work as teamster.....	2605	10 80
	Geo. Wilson.....	37 hrs. stone work @ 17½c.....	2606	6 45

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STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Jan. 14	Geo. Cook.....	45 hours carp. work @ 25c.....	2607	\$11 25
	V. T. Fishbaugh.....	54 " ".....	2608	13 50
	J. McGraw.....	54 " ".....	2609	13 50
	F. Shannon.....	45 " ".....	2610	11 25
	F. Donnelly.....	Brick and stone work.....	2611	7 85
	E. A. Worley.....	Stone work.....	2612	8 45
	Geo. Steele.....	Carpenter work.....	2613	7 95
8	F. W. Sturdivant.....	Expenses witness, Evans vs. Trustees.....	2614	50 00
15	J. Vennard.....	55 hrs. stone work @ 40c.....	2615	22 00
	A. Reibly.....	52 " ".....	2616	20 80
	J. Cunningham.....	55 " ".....	2617	22 00
	L. Wattering.....	Hauling brick.....	2618	70 89
17	J. H. Nolan.....	20 hours brick work @ 45c.....	2619	9 00
	I. P. Roberts.....	Expenses address Townshend Hall dedication.....	2620	32 80
20	F. M. Senter, P. M.....	600-1c., 500-2c., 100-5c., stamps	2621	21 00
21	Maggie Zimmerman.....	Services as maid.....	2622	3 00
	Col. Gas Co.....	Gas used in December, '97.....	2623	152 40
22	F. M. Senter, P. M.....	Dep. for 2d class matter.....	2624	10 00
	H. E. Kennedy, Supt.....	Pay roll workmen new bldgs..	2625	649 10
	J. H. Brigham.....	Exp. as speaker Townshend Hall dedication.....	2626	15 00
	H. W. Wiley.....	Exp. as speaker Townshend Hall dedication.....	2627	34 00
24	Co. Recorder Pick. Co....	Recording deed.....	2628	1 00
28	A. W. Kight.....	23 hours work @ 15c.....	2629	3 45
	Maggie Zimmerman.....	1 week's work.....	2630	3 00
29	H. A. Weber.....	1 st salary January inst. 1898	2631	225 00
	A. M. Bleile.....	" ".....	2632	225 00
	W. A. Kellerman.....	" ".....	2633	225 00
	C. N. Brown.....	" ".....	2634	225 00
	A. C. Barrows.....	" ".....	2635	225 00
	Edw. Orton.....	" ".....	2636	225 00
	E. A. Eggers.....	" ".....	2637	225 00
	I. R. Smith.....	" ".....	2638	225 00
	G. W. Knight.....	" ".....	2639	225 00
	W. R. Lazenby.....	" ".....	2640	225 00
	S. C. Derby.....	" ".....	2641	225 00
	R. D. Bohannon.....	" ".....	2642	225 00
	W. T. Magruder.....	" ".....	2643	225 00
	J. P. Gordy.....	" ".....	2644	225 00
	W. H. Scott.....	" ".....	2644	225 00
	B. F. Thomas.....	" ".....	2646	225 00
	J. V. Denney.....	" ".....	2647	225 00
	B. L. Bowen.....	" ".....	2648	225 00
	D. S. Kellicott.....	" ".....	2649	225 00
	A. L. Williston.....	" ".....	2650	225 00
	Thos. F. Hunt.....	" ".....	2651	250 00
	N. W. Lord.....	" ".....	2652	200 00
29	G. W. Kauffman.....	" ".....	2653	200 00
	W. McPherson.....	" ".....	2654	200 00
	F. A. Ray.....	" ".....	2655	200 00
	Edw. Orton, Jr.....	" ".....	2656	180 00
	J. W. Bradford.....	" ".....	2657	180 00

STATEMENT NO. II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Jan. 29	G. W. McCoard	¹ / ₁₀ salary January inst., 1898	2658	\$160 00
	H. C. Lord	" "	2659	150 00
	E. A. Hitchcock.....	" "	2660	150 00
	W. D. Gibbs.....	" "	2661	140 00
	P. G. Bowman	" "	2662	140 00
	F. C. Caldwell.....	" "	2663	140 00
	D. S. White	" "	2664	140 00
	S. A. Norton	" "	2665	120 00
	R. I. Fulton	" "	2666	120 00
	Olive Jones	" "	2667	120 00
	J. E. Boyd.....	" "	2668	110 00
	C. E. Sherman	" "	2669	100 00
	T. E. French	" "	2670	100 00
	C. W. Meshoh.....	" "	2671	100 00
	F. C. Clark	" "	2672	100 00
	W. H. Siebert	" "	2673	100 00
	A. W. Hodgman.....	" "	2674	100 00
	J. R. Taylor	" "	2675	100 00
	J. A. Bownocker.....	" "	2676	90 00
	W. A. Knight.....	" "	2677	90 00
	C. W. Weick.....	" "	2678	90 00
	C. C. Steffel	" "	2679	90 00
	C. W. Foulk.....	" "	2680	85 00
	C. L. Arnold.....	" "	2681	85 00
	K. D. Swartzel	" "	2682	85 00
	C. A. Dye	" "	2683	85 00
	J. S. Hine	" "	2684	85 00
	J. H. Schaffner	" "	2685	80 00
	C. Wissler	" "	2686	80 00
	W. L. Graves.....	" "	2687	80 00
	C. A. Bruce.....	" "	2688	80 00
	C. W. Burkett	" "	2689	75 00
	W. F. Lavery.....	" "	2690	70 00
	F. Haas.....	" "	2691	70 00
	E. E. Harrold	" "	2692	70 00
	A. E. Vinson	" "	2693	65 00
	F. L. Landacre.....	" "	2694	65 00
	E. M. VanHarlingen....	" "	2695	60 00
	F. K. Lewis	" "	2696	60 00
	Harriet Townshend	" "	2697	55 00
	F. E. Kester.....	" "	2698	55 00
	Maude Jeffrey	" "	2699	50 00
	Gertrude Kellicott	" "	2700	50 00
	J. T. Martin	" "	2701	40 00
	J. R. Spurrier.....	" "	2702	35 00
	H. W. Kuhn	" "	2703	30 00
	Horace Judd	" "	2704	30 00
	J. H. Fox.....	" "	2705	30 00
	C. T. Morris.....	" "	2706	30 00
	J. F. Cunningham	" "	2707	30 00
	J. G. Boyd.....	" "	2708	25 00
	C. B. Frederick	" "	2709	25 00
	Robt. Fischer	" "	2710	20 00
	F. O. Clements	" "	2711	20 00
	A. V. Bleininger.....	" "	2712	20 00

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STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898. Jan. 29	W. F. Hunter.....	$\frac{1}{10}$ salary January inst., 1898	2713	\$250 00
	W. H. Page.....	" " "	2714	100 00
	E. B. Kinhead.....	" " "	2715	100 00
	D. F. Pugh.....	" " "	2716	70 00
	E. O. Randall.....	" " "	2717	65 00
	J. P. Jones.....	" " "	2718	35 00
	G. W. Knight.....	" " "	2719	25 00
	F. F. D. Albery.....	" " "	2720	15 00
	J. H. Collins.....	" " "	2721	10 00
	J. H. Canfield.....	Salary for January, 1898.....	2722	500 00
	Alexis Cope.....	" " "	2723	187 50
	W. C. McCracken.....	" " "	2724	125 00
	Jean Blackford.....	" " "	2725	50 00
	Edith Cockins.....	" " "	2726	54 17
	C. B. Hine.....	" " "	2727	50 00
	C. Low.....	" " "	2728	54 17
	Wm. Standley.....	" " "	2729	45 00
	Benj. LeBay.....	" " "	2730	45 00
	G. R. Rose.....	" " "	2731	65 00
	J. H. Brown.....	" " "	2732	45 00
	Jas. Kelly.....	" " "	2733	41 67
	F. B. Brewer.....	" " "	2734	40 00
	Jno. Adams.....	" " "	2735	40 00
	Jno. Conrad.....	" " "	2736	40 00
	C. Loveberry.....	" " "	2737	25 00
	Edw. Stalter.....	" " "	2738	20 00
	Wm. Weir.....	" " "	2739	20 00
	Wm. R. Beattie.....	" " "	2740	54 17
	A. Chantler.....	" " "	2741	45 00
	W. Whitestine.....	" " "	2742	45 00
	Wash Townshend.....	" " "	2743	30 00
	F. W. Prentiss.....	" " "	2744	33 33
	C. Riddle.....	" " "	2745	20 00
	O. A. Davis.....	" " "	2746	10 00
	W. E. Chappel.....	" " "	2747	10 00
	H. Gamper.....	" " "	2748	10 00
	K. Nurian.....	" " "	2749	10 00
	E. E. Somermeier.....	" " "	2750	10 00
	C. P. Linhart.....	" " "	2751	160 00
	Stella Elliott.....	" " "	2752	60 00
	M. N. Cook.....	" " "	2753	40 00
	Mary H. Cope.....	" " "	2754	40 00
	H. J. Noyes.....	" " "	2755	166 66
	J. A. Thompson.....	" " "	2753	13 50
	M. Dresback.....	$\frac{1}{10}$ salary January inst., 1898...	2757	30 00
	Theo. Griffin.....	" " "	2758	40 00
	B. F. Slocum.....	63 hrs. work @ 15c.....	2759	9 45
	Jno. Thissan.....	8 hrs. work @ 45c.....	2760	3 60
	F. M. Senter, P. M.....	500 2c, 250 1c stamps.....	2761	12 50
Feb. 31	Caldwell & Iseminger..	Mill work and lumber.....	2762	551 84
2	T. J. Dundon & Co.....	Lumber.....	2763	144 58
	Pedrick & Ferris.....	Mortar.....	2764	17 50
	C. Durner.....	Sharpening tools.....	2765	3 03
	Orr, Brown & Price.....	Muriatic acid.....	2766	2 28
	A. Wagner.....	Use hoisting engine.....	2767	48 89

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898. Feb. 2	H. Haerlein.....	Services as landscape gardn'r		
	P. T. Hord	75 hrs. elect. wk. @ 10c.....	2768	\$ 17 20
	Cols. Plate and Window		2769	7 50
	Glass Co.....	1 German mirror.....	2770	1 70
	Cols. Sewer Pipe Co.....	1 4x4.....	2771	14
	Crosby Steam, G. & V. Co	Water gauge	2772	77 65
	W. T. Magruder.....	Express charges paid	2773	80
	P. Hayden S. Hdw. Co..	Iron	2774	18
	Tallmadge Hdw. Co.....	Hardware	2775	6 63
	Nitschke Bros.	5 sheets cardboard.....	2776	25
	Cols. Supply Co.....	Pipe fittings.....	2777	15 34
	Schaffer & Budenburg..	Water gauge.....	2778	8 13
	F. Charles.....	Hauling.....	2779	1 26
	Metni Metal Works	1 meter, etc.....	2780	15 00
	A. F. Hall.....	1 month's labor.....	2781	60 00
	H. Cole & Co.....	Paragon paper, etc.....	8782	1 60
	F. J. Hale.....	1½ hours @ 19c.....	2783	23
	E. H. Bailey.....	76½ " 15c.....	2784	11 48
	J. Kane.....	234 " 12½c.....	2785	29 25
	C. J. Morrow.....	5 " 12½c.....	2786	63
	M. Cook.....	10 " 12½c.....	2787	1 25
	Seraphim Bl'k Book Co.	Book binding.....	2788	101 30
	Burrows Bros. Co.....	Books	2789	77 45
	Cleve. Public Library...	Cumulative Index to "Per".....	2790	15 00
	Power Pub. Co.....	5 copies "Power"	2791	50
	McClelland & Co.....	Ink	2792	1 00
	H. H. Ballard.....	2 boxes clips.....	2793	1 00
	W. S. Wiggins.....	Stamps	2794	90
	Boston Book Co.....	Books	2795	2 43
	W. S. Houghton.....	2 sets McClure's and Scrib- ner's	2796	13 00
	Lemcke & Buechner....	1 book	2797	53
	W. T. Porter.....	Sub. vol. 1, Am. Journal Phy- siology.....	2798	5 00
	A. H. Smythe.....	Stencil paper.....	2799	1 00
	G. E. Stechert.....	Books.....	2800	667 84
	C. E. Williams.....	Casting for engine.....	2801	7 36
	Ohio Pipe Co.....	Threshold	2802	1 05
	M. J. Bergin Lum. Co ..	Lumber	2803	1 20
	A. F. Wilcox.....	62 hours grading @ 15c.....	2804	9 45
	D. K. Starbuck.....	91 " @ 10c less 9c.....	2805	9 01
	R. E. McIntosh.....	128 " 12½c	2806	15 91
	J. R. Spurrier.....	123½ " elect. wk. @ 20c	2807	24 70
	R. R. Dunlap.....	73½ " @ 10c.....	2808	7 35
	E. G. Webster.....	116½ " elect. wk. @ 12½c.....	2809	14 44
	O. A. Davis.....	245½ " work	2810	42 61
	E. E. Graham.....	Elect. plant work.....	2811	9 08
	L. B. Powell.....	"	2812	10 11
	M. C. Hunter.....	"	2813	3 77
	A. E. Loeb	"	2814	20 47
	L. R. Krumm.....	68½ hours work @ 10c.....	2815	6 85
	H. S. Green.....	38½ "	2816	3 35
	E. J. McNamara.....	Gas fitting.....	2817	90 00
	Robt. Butterworth.....	54½ hours work @ 10c.....	2818	5 23
	Jas. Clark.....	Plastering	2819	295 00

ANNUAL REPORT

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Feb. 2	Brown Mfg. Co.....	Wagon tires, etc.....	2820	\$56 11
	Cap. City Mch. Works...	Wire racks, etc.....	2821	24 77
	Bradley, Munk & Co.....	Milk cans	2822	9 60
	A. H. Reid	Milk bottles.....	2823	2 38
	Wm. Burdell	Harness.....	2824	36 40
	Champlin Ptg. Co	1000 students reports in butter making	2825	3 00
	India Alkali Works.....	1 keg savogran	2826	7 48
	Hann & Adair.....	1,500 pcs 20 pound H. B	2827	2 50
	L. C. R. Baldwin.....	62 hours in dairy lab. at 15c... ..	2828	9 30
	F. S. Johnston.....	145 hours cler. work at 12½c... ..	2829	18 13
	A. F. Wilcox	44 hours work at 15c.....	2830	6 60
	N. F. Pheneger.....	Milk	2831	341 02
	E. S. Ream	22 hours camp work at 12½c... ..	2832	2 75
	J. C. Britton.....	71 hours work at 15c.....	2833	10 65
	J. A. Thompson.....	18 " 12½c.....	2834	2 25
	A. F. Wilcox.....	108 " 15c.....	2835	16 20
	C. H. Clevenger	15 " 12½c	2836	1 88
	Champlin Ptg. Co	Blanks, cards, etc.....	2837	33 65
	W. D. Hoard Co.....	Advertising	2838	17 01
	O. T. Corson	"	2839	22 50
	Press Post Ptg. Co.....	"	2840	36
	O. S. Journal Co.....	"	2841	55
	Phelps Publishing Co....	"	2842	5 95
	E. Cook & Bro.....	50 copies Cols. Dispatch	2843	1 50
	Baker & Co	Platinum wire, etc.....	2844	64 03
	Blackwood, Green & Co	Repairing copper ovens.....	2845	90
	Rochester Opt. Co.....	Instruments.....	2846	30 20
	Champlin Ptg. Co	Labels	2847	1 25
	Eimer & Amend.....	1 yard pressure tubing.....	2848	42
	Kimball & Matthews ..	Chem. supplies.....	2849	16 99
	W. B. Calkins	Work in store room.....	2850	34 95
	N. P. Oglesby	"	2851	13 50
	Kauffman, Lattimer Co	Drugs and chemicals.....	2852	977 78
	W. D. Griffith.....	6½ days at \$1.50	2853	9 75
	Thos. Algeo.....	33 days, 6 hours at \$1.50.....	2854	50 40
	M. Peck	31 " at \$1.50.....	2855	46 50
	Thos. Boude.....	31 " \$1.50.....	2856	46 50
	J. Stainbrook.....	28½ " \$1.50.....	2857	42 75
	J. Garretson.....	25 " \$1.50.....	2858	37 50
	H. Chantler	7 " \$1.50.....	2859	10 50
	Chas. Pixler.....	26 " \$1.50.....	2860	37 50
	W. E. Case	29 " \$1.50.....	2861	43 95
	Ohio Furn. Co.....	2 wood stools.....	2862	1 80
	F. L. Estep.....	4 hours work at 15c.....	2863	60
	L. R. Krumm	4½ " 10c	2864	45
	W. E. Chappell.....	87 " 15c.....	2865	13 05
	J. L. Trauger	Making paper files.....	2866	3 50
	Tallmadge Hdw. Co	Bolts, hooks, etc.....	2867	3 33
	D. S. White	Halter, etc.....	2868	1 50
	C. B. Fredericks.....	Mounting cow's skeleton.....	2869	20 00
	McAllister, Mohler & Co	Furniture	2870	37 50
	Detchon & Sparhawk....	Feed	2871	14 95
	H. Braun, Sons & Co....	Anti-toxine, etc.....	2872	23 00
	Ohio State Journal Co ..	Advertising	2873	4 48

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Feb. 2	Tallmadge Hdw. Co	1 scoop	2874	\$1 00
	G. E. Stechert.....	Books.....	2875	31 00
	M. A. Seed Dry Plate Co	Plates	2876	2 52
	Kimball & Mathews	Photo material	2877	6 07
	McClelland & Co	Stationery	2878	2 20
	F. D. Cope	7 days reg. students @ \$1.50..	2879	10 50
	E. B. Voorhees, Treas ..	Membership in A. A. C. A.....	2880	10 00
	W. U. Telegraph Co.....	Messages.....	2881	54
	Ruggles Gale Co.....	1 file.....	2882	2 00
	W. S. Orvis	Carbon paper, etc	2883	65
	E. O. Vaile	1 Directory, Ohio.....	2884	1 00
	M. J. Bergin Lumb. Co ..	1 load saw dust	2885	2 00
	Tracy-Wells Co.....	Brooms, pails, etc	2886	18 07
	Webb Stat'ry & Ptg. Co ..	Drawer partitions.....	2887	2 00
	India Alkali Works.....	1 barrel savogran.....	2888	19 50
	Standard Oil Co	Oils	2889	40 29
	Oscar S. Lear	Ink	2890	90
	M. Armbruster & Sons..	Removing scenery.....	2891	6 00
	Am. Dist. Teleg. Co	Rent, fire alarm box.....	2892	2 50
	Yale & T. Mfg. Co.....	Latches and keys.....	2893	24 30
	W. Ramsey.....	Laundrying towels	2894	72
	Mrs. Myers.....	Washing towels	2895	66
	F. F. Bonnet	1 clock.....	2896	5 00
	D. C. Huddleson	Work in Ex. office, etc.....	2897	2 17
	F. R. West	94 hours guide work @ 12½c..	2898	11 75
	R. J. Seymour	Guide work, etc	2899	10 12
	E. G. Oberlin	15 hours guide work @ 12½c..	2900	1 87
	F. C. McKinney.....	18 " " " " " " " " " " " "	2901	2 25
	Annis McLaughlin	39 hours office work	2902	5 85
	C. E. Barnett.....	2 days work @ \$2.....	2903	4 00
3	W. E. Chappell.....	Elect. work	2904	5 43
	Blackwood, Green & Co ..	Chimney stacks, iron, etc.....	2905	69 87
	Payne McD. Hdw. Co....	Hardware	2906	13 35
	L. S. Wells.....	Wall paper and hanging	2907	6 22
	W. B. Kirkpatrick	63½ hours elcct. work @ 12½c..	2908	7 94
	Alexis Cope.....	Expenses paid Evans case....	2909	42 00
	Westinghouse Elec. Co..	Watt meters.....	2910	136 00
	A. S. W. Huffman.....	Plumbing	2911	300 00
	Wm. Caldwell	Gun cases.....	2912	1,000 00
	Kilbourne Jones Co.....	Scales.....	2913	31 20
	Krauss, Butler & B. Co..	2 rugs, etc.....	2914	22 20
	McAllister & Mohler Co ..	Furniture.....	2915	55 03
	J. King Opt. Co.....	1 set test type, etc.....	2916	5 64
	Murray City Coal Co ..	Coal	2917	1,898 09
	Robbins & Co	Linen duck, etc	2918	2 70
	D. C. Beggs Co.....	Shades	2919	29 00
	Columbus Brass Co.	Nipples	2920	60
	Capital City Mch. Wks..	Plates, washers and appliances	2921	114 10
	Cass Harkins	1 engine	2922	250 00
	Col. Wire & Iron Works	1 wire mat	2923	5 25
	F. G. Howald & Co	Furniture	2924	48 00
	Library Bureau.....	6 labels	2925	81 00
	Kinkade & Liggett	Angles, etc.....	2926	5 50
	M. C. Lilley & Co.....	1 reading desk	2927	11 75

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Feb. 3	Howe Scale Co	1 grain tester	2928	\$12 50
	Cornish C. & G. Mfg. Co.	Dairy apparatus	2929	48 65
	Blackwood, Green & Co.	Galv. iron, flower pots.....	2930	87 68
	Vt. Farm Mch. Co	Dairy apparatus.....	2931	191 15
	M. & L. E. Gurley.....	1 anemometer	2932	16 80
	A. H. Reid	Dairy apparatus	2933	102 52
	McAllister, Moher & Co.	Office furniture	2934	302 17
	Col. Cabinet Co	Furniture	2935	245 75
	A. H. Barber & Co.....	Ice machine, etc.....	2936	1,054 46
	H. Chantler	Help installing ice machine..	2937	19 00
	E. S. Ream	30 hours work @ 12½c.....	2938	3 75
	C. H. Clevenger	25 " "	2939	3 13
	J. A. Thompson	12 " "	2940	1 50
	C. L. Sackett	10 " "	2941	1 25
	C. W. Mooney	39 " @ 15c	2942	5 85
	H. L. Belden	109 " @ 12½c.....	2943	13 63
	W. Gilmore	55 " "	2944	6 88
	J. C. Perry	81 " "	2945	10 13
	D. M. Massie	Expense trustee from Nov. 9 to date.....	2946	15 70
	G. B. Schulte Sons & Co	Bals.....	2947	8 77
	H. Cole & Co	B. P. Paper.....	2948	1 00
	E. A. Kinsey Co	Brass rods, etc	2949	17 56
	Kelton & Converse.....	Lumber	2950	84 41
	Hanna Pt. Mfg. Co.....	Shellac.....	2951	90
	Col. Gas Co	Coke	2952	7 25
	F. Charles.....	Hauling.....	2953	2 50
	Tallmadge Hdw. Co	Hardware	2954	25 52
	Kinkade & Liggett.....	Angle steel.....	2955	2 00
	Crosby St. Gauge Co	1 gage	2956	3 60
	Griswold Sohl Co	Iron	2957	3 80
	McClelland & Co.....	6 files	2958	1 35
	Col. Supply Co	Pipe, etc	2959	1 92
	Clev. Twist Drill Co	Drills, etc	2960	1 38
	Blackwood Green & Co.	Pipe	2961	9 56
	W. Erdman.....	85½ hours work @ 17½c.....	2962	14 96
	J. H. Nold	94 " 15c.....	2963	14 10
	J. H. Lesh.....	29 " 15c.....	2964	4 35
	G. Leinbaugh.....	10½ " in mch. shops.....	2965	1 57
	W. Erdman	11 " @ 17½c.....	2966	1 93
	J. H. Lesh.....	20½ " @ 15c.....	2967	3 03
	E. H. Bailey.....	72½ " "	2968	10 87
	J. H. Nold	122 " "	2969	18 37
	Flood & Vincent	1 book	2970	1 00
	Macmillan Co	Books.....	2971	5 12
	Miss C. C. Koehl	Photos.....	2972	3 75
	Chic. Lab. Sup. & Sc. Co	1 mercury commentator	2973	4 50
	Bissell, Dodge & E. C..	Elect. supplies	2974	13 77
	L. S. Wells.....	Books.....	2975	12 00
	Burrows Bros. Co.....	"	2976	3 50
	Richards & Co	Microscopes, etc.....	2977	87 25
	D. S. Kellicott	Lab. supplies	2978	10 58
	Jas. Seaman.....	24 insect cases.....	2979	31 20
	Col. Gas Co	Coke.....	2980	14 50
	N. W. Lord.....	Cash paid for gas.....	2981	4 05

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898. Feb. 3	L. T. Williams.....	Work in library	2982	\$9 75
	Lucy Allen.....	88 hours work @ 12½c.....	2983	11 00
	Inland Pub. Co.....	1 book	2984	86
	Chas. Scribner's Sons...	Books.....	2985	2 26
	Spahr & Glenn.....	Exam. questions	2986	12 00
	D. C. Huddleson.....	Office work.....	2987	4 60
	A. McLaughlin	"	2988	10 00
	Edw. Orton	Fossil skull	2989	50 00
	L. C. Riddle.....	35 hours work @ 15c	2990	5 25
	Bissell, Dodge & E. Co..	Knives, plugs, etc	2991	4 91
	Lincoln Elect. Co.....	Dynamo, etc.....	2992	45 00
	West. Electric Co.....	Electric appliances	2993	30 24
	Payne McD. Hdw. Co...	Hardware	2994	80
	Penna. Fuel Co	Coal	2995	2 10
	J. J. Murray & Co.....	Electric appliances	2996	12 23
	G. D. Freeman	Electric work	2997	5 25
	C. R. Stauffer.....	8½ hrs. elec. work @ 10c.....	2998	85
	Champlin Ptg. Co.....	Envelopes, etc.....	2999	38 50
	R. R. Johnston	Banquet at armory.....	3000	215 62
	W. R. Beattie	Carnations, etc	3001	2 95
	Hager & Graves	Groceries	3002	40 73
	H. Braun Sons & Co.....	Scale and weight	3003	2 50
	Kilbourne-Jones Co.....	Scale	3004	3 00
	A. W. Livingston's Sons	Seeds, etc.....	3005	2 85
	J. M. & W. Westwater..	Vases, teapot, etc	3006	6 19
	Logan McCormick.....	4 doz. mounts	3007	3 84
	J. W. Bradford.....	Lab. supplies.....	3008	3 15
	B. F. Wissler	Circulars.....	3009	10 85
	J. P. Gordy	Exp. charges paid	3010	35
	F. C. Caldwell	4 mo. Supt. elect. plant	3011	100 00
	Tallmadge Hdw. Co.....	Hardware	3012	7 40
	Blackwood G. & Co.....	Brushes, etc	3013	64 30
	Schoedinger, Fearn & Co	Hardware	3014	20 12
	Engelke & Bigelow.....	Hauling.....	3015	36 00
	Ruggles Gale Co.....	Stationery	3016	2 75
	J. W. Coulson & Co.....	Painting and glazing	3017	996 45
	R. A. McClure.....	Mill work	3018	359 47
	Champion Iron Co.....	Ornamental and structural iron.....	3019	879 12
	Acme Paving Co.....	Cement work.....	3020	446 37
	W. Taylor Man. & G. Co	Mill work.....	3021	637 50
	Fitzpatrick & Hoepfner	Plumbing, etc.....	3022	400 00
	Shilling Foundry Co.....	Box casting	3023	2 52
	Post-Glover Elec. Co...	Spec. clusters, etc	3024	19 91
	Central Elec. Co.....	Electric supplies	3025	73 50
	J. M. & W. Westwater..	Pendants, etc.....	3026	306 12
	Col. Ed. E. Light Co.....	Lamps	3027	201 50
	Schoedinger, Fearn & Co	Hardware	3028	18 78
	Col. Supply Co	Pipe and fittings	3029	40 24
	Stitt, Price & Co	Cement	3030	3 00
	Bissell, Dodge & E. Co..	Electric supplies	3031	58 46
	Yost & Packard.....	Services as architects.....	3032	449 53
	Schoedinger, Fearn & Co	Hardware	3033	2 35
	Hann & Adair.....	Cards, envelopes, etc	3034	10 95
	Tallmadge Hdw. Co	Hardware	3035	15 34

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Feb. 3	Kelton & Converse	Lumber	3036	\$34 18
	Engelke & Bigelow	Freight hauling	3037	71 18
	Keasby & Mattison Co.	Magnesia covering	3038	1,855 39
	J. B. Colt & Co.	2 lamps	3039	22 50
	A. T. Kasley	Elec. work	3040	5 44
	C. E. Lee	"	3041	11 71
	Elec. Appliance Co.	Elec. supplies	3042	40 78
	General Elec. Co.	"	3043	161 44
	A. D. Morley	Carpenter work	3044	10 75
	John Cain	Elec. work	3045	2 15
	Peters, Burns & Pretz'r	Services as architects	3046	500 00
	John Hertner	Elec. work	3047	4 78
	J. H. Randall	Carpenter work	3048	25 00
	C. H. Woodruff	"	3049	62 34
	M. Staley	Elec. work	3050	4 11
	C. H. Crumley	"	3051	3 86
	M. G. Blose	"	3052	6 31
4	Maggie Zimmerman	Service department domestic science	3053	3 00
	H. E. Kennedy, supt.	Expenses as trustees	3054	27 80
5	L. B. Wing	Pay roll	3055	519 85
	Clarence Loveberry	On account salary	3056	4 17
	L. Williams	5 hrs. watchman @ 15c.	3057	75
June 20	Columbus Gas Co.	Gas for January, 1898	3058	125 03
Feb. 10	M. Zimmerman	1 week dep. dom. science	3059	3 00
	H. E. Kennedy, supt.	Salary 1 month	3060	356 00
17	Maggie Zimmerman	1 week dep. dom. science	3061	3 00
18	C. L. Watterling	Hauling	3062	10 98
19	H. E. Kennedy, supt.	Pay roll	3063	609 40
23	Steve Neth	Carpenter work	3064	6 75
24	O. W. Lehman	"	3065	11 25
	M. Zimmerman	1 week dept. dom. science	3066	3 00
26	Thos. F. Hunt	1/10 salary February inst., 1898 ..	3067	250 00
	H. A. Weber	"	3068	225 00
	A. M. Bleile	"	3069	225 00
	W. A. Kellerman	"	3070	225 00
	C. N. Brown	"	3071	225 00
	A. C. Barrows	"	3072	225 00
	Edw. Orton	"	3073	225 00
	E. A. Eggers	"	3074	225 00
	J. R. Smith	"	3075	225 00
	G. W. Knight	"	3076	225 00
	W. R. Lazenby	"	3077	225 00
	S. C. Derby	"	3078	225 00
	R. D. Bohannon	"	3079	225 00
	W. T. Magruder	"	3080	225 00
	J. P. Gordy	"	3081	225 00
	W. H. Scott	"	3082	225 00
	B. F. Thomas	"	3083	225 00
	J. V. Denney	"	3084	225 00
	B. L. Bowen	"	3085	225 00
	D. S. Kellicott	"	3086	225 00
	A. L. Williston	"	3087	225 00
	N. W. Lord	"	3088	200 00
	G. B. Kauffman	"	3089	200 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898. Feb. 26	W. McPherson.....	1 st sal. Feb. inst., 1898.....	3090	\$200 00
	F. A. Ray.....	" " ".....	3091	200 00
	Edw. Orton, Jr.....	" " ".....	3092	180 00
	J. N. Bradford.....	" " ".....	3093	180 00
	G. W. McCoard.....	" " ".....	3094	160 00
	C. P. Linhart.....	" " ".....	3095	160 00
	H. C. Lord.....	" " ".....	3096	150 00
	E. A. Hitchcock.....	" " ".....	3097	150 00
	W. D. Gibbs.....	" " ".....	3098	140 00
	P. G. Bowman.....	" " ".....	3099	140 00
	F. C. Caldwell.....	" " ".....	3100	140 00
	D. S. White.....	" " ".....	3101	140 00
	S. A. Norton.....	" " ".....	3102	120 00
	R. I. Fulton.....	" " ".....	3103	120 00
	Olive Jones.....	" " ".....	3104	120 00
	J. E. Boyd.....	" " ".....	3105	110 00
	C. E. Sherman.....	" " ".....	3106	100 00
	T. E. French.....	" " ".....	3107	100 00
	C. W. Mesloh.....	" " ".....	3108	100 00
	F. C. Clark.....	" " ".....	3109	100 00
	W. H. Siebert.....	" " ".....	3110	100 00
	A. W. Hodgman.....	" " ".....	3111	100 00
	J. R. Taylor.....	" " ".....	3112	100 00
	J. A. Bownocker.....	" " ".....	3113	90 00
	W. A. Knight.....	" " ".....	3114	90 00
	C. W. Weick.....	" " ".....	3115	90 00
	C. C. Sieffel.....	" " ".....	3116	90 00
	C. W. Foulk.....	" " ".....	3117	85 00
	C. L. Arnold.....	" " ".....	3118	85 00
	K. D. Swartzel.....	" " ".....	3119	85 00
	C. A. Dye.....	" " ".....	3120	85 00
	J. S. Hine.....	" " ".....	3121	85 00
	J. H. Schaffner.....	" " ".....	3122	80 00
	C. Wissler.....	" " ".....	3123	80 00
	W. L. Graves.....	" " ".....	3124	80 00
	C. A. Bruce.....	" " ".....	3125	80 00
	C. W. Burkett.....	" " ".....	3126	75 00
	W. F. Lavery.....	" " ".....	3127	70 00
	F. Haas.....	" " ".....	3128	70 00
	E. E. Harrold.....	" " ".....	3129	70 00
	A. E. Vinson.....	" " ".....	3130	65 00
	F. L. Landacre.....	" " ".....	3131	65 00
	E. M. VanHarlingen.....	" " ".....	3132	60 00
	T. K. Lewis.....	" " ".....	3133	60 00
	Stella Elliott.....	" " ".....	3134	60 00
	H. Townshend.....	" " ".....	3135	55 00
	F. F. Kester.....	" " ".....	3136	55 00
	Maude Jeffrey.....	" " ".....	3137	50 00
	Gertrude Kellicott.....	" " ".....	3138	50 00
	Theodore Griffin.....	" " ".....	3139	40 00
	J. T. Martin.....	" " ".....	3140	40 00
	J. R. Spurrier.....	" " ".....	3141	35 00
	M. Dresbach.....	" " ".....	3142	30 00
	H. W. Kuhn.....	" " ".....	3143	30 00
	H. Judd.....	" " ".....	3144	30 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Feb. 26	J. H. Fox.....	1 st salary Feb. inst., 1898.....	3145	\$30 00
	C. T. Morris.....	" ".....	3146	30 00
	J. F. Cunningham.....	" ".....	3147	30 00
	J. G. Boyd.....	" ".....	3148	25 00
	C. B. Frederick.....	" ".....	3149	25 00
	C. Riddle.....	" ".....	3150	20 00
	R. Fischer.....	" ".....	3151	20 00
	F. O. Clements.....	" ".....	3152	20 00
	A. V. Bleininger.....	" ".....	3153	20 00
	J. A. Thompson.....	" ".....	3154	13 50
	O. A. Davis.....	" ".....	3155	10 00
	W. E. Chappell.....	" ".....	3156	10 00
	H. Gamper.....	" ".....	3157	10 00
	K. Nurian.....	" ".....	3158	10 00
	E. E. Sommermeier.....	" ".....	3159	10 00
	W. F. Hunter.....	" ".....	3160	250 00
	W. H. Page.....	" ".....	3161	100 00
	E. B. Kinkead.....	" ".....	3162	100 00
	D. F. Pugh.....	" ".....	3163	70 65
	E. O. Randall.....	" ".....	3164	65 00
	Paul Jones.....	" ".....	3165	35 00
	G. W. Knight.....	" ".....	3166	25 00
	F. F. D. Albery.....	" ".....	3167	15 00
	J. H. Collins.....	" ".....	3168	10 00
	J. H. Canfield.....	Salary for Feb., 1898.....	3169	500 00
	Alexis Cope.....	" ".....	3170	187 50
	W. C. McCracken.....	" ".....	3171	125 00
	G. R. Rose.....	" ".....	3172	65 00
	W. R. Beattie.....	" ".....	3173	54 17
	Edith Cockins.....	" ".....	3174	54 17
	Chas. Low.....	" ".....	3175	54 17
	Jean Blackford.....	" ".....	3176	50 00
	C. B. Hine.....	" ".....	3177	50 00
	Mary H. Cope.....	" ".....	3178	50 00
	A. Chantler.....	" ".....	3179	45 00
	Wm. Stanley.....	" ".....	3180	45 00
	B. Le Bay.....	" ".....	3181	45 00
	H. Martz.....	" ".....	3182	45 00
	Jas. Kelly.....	" ".....	3183	41 67
	J. H. Brown.....	" ".....	3184	40 00
	M. N. Cook.....	" ".....	3185	40 00
	W. Whitestine.....	" ".....	3186	40 00
	D. D. Geren.....	" ".....	3187	40 00
	F. B. Brewer.....	" ".....	3188	40 00
	J. E. Adams.....	" ".....	3189	40 00
	Jno. Conrad.....	" ".....	3190	40 00
	F. W. Prentiss.....	" ".....	3191	33 33
	Wash. Townsend.....	" ".....	3192	30 00
	Edw. Stalter.....	" ".....	3193	20 00
	Wm. Weir.....	" ".....	3194	20 00
	H. J. Noyes.....	" ".....	3195	166 66
	T. W. Broomhall.....	" ".....	3196	13 50
	F. M. Senter, P. M.....	600 1c., 500 2c., 10 special de- livery stamps.....	3197	17 00
	Col. St. Ry. Co.....	Car tickets.....	3198	5 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1897.				
Feb. 26.	D. D. Geren.....	Bal. Jan. 12 to 31, Janitor.....	3199	\$23 33
Mar. 1	Mike Geary.....	3 hrs. carp. work @ 25c.....	3200	9 00
2	R. R. Bowker.....	1 Am. and Eng. catalogue.....	3201	5 00
	Library Bureau.....	— chairs, etc.....	3202	107 60
	Ginn & Co.....	Books.....	3203	2 00
	Natl. Ed. Association...	Proceedings.....	3204	34 00
	W. S. Wiggins.....	5 stamps.....	3205	1 25
	Spahr & Glenn.....	Ptg. cards, record sheets.....	3206	40 25
	Burrows Bros. Co.....	Books, etc.....	3207	177 43
	G. E. Stecher.....	".....	3208	150 56
	F. J. Olson.....	Classification lists.....	3209	30 35
	West Pub. Co.....	Books.....	3210	69 75
	Keiton & Converse.....	Lumber.....	3211	4 18
	Col. Supply Co.....	Fittings and pipe.....	3212	89 62
	Cap. City Mch. Works...	Fittings and machine work...	3213	49 73
	McAllister, Mohler & Co	Chairs, desks, etc.....	3214	94 50
	Tallmadge Hdw. Co.....	Hardware.....	3215	30 92
	Cap. City Mch. Works...	White waste, etc.....	3216	30 01
	Tracy-Wells Co.....	Brooms, brushes, etc.....	3217	11 93
	A. S. W. Huffman.....	Est. No. 29, plumbing.....	3218	1,000 00
	Schoeding'r, Fearn & Co	Hardware.....	3219	5 38
	Col. Ed. Elec. Lt. Co.....	15 carbons.....	3220	60
	Std. Underg'd Cable Co.	Covers.....	3221	79 00
	Bissel, Dodge & E. Co...	Hardware and supplies, elect..	3222	72 49
	Nitschke Bros.....	Letter heads, cards, etc.....	3223	12 27
	Hann & Adair.....	Printing, stationery, etc.....	3224	18 95
	Chering'tn Ptg & En. Co	2 rubber stamps, etc.....	3225	2 70
	F. Schoedinger.....	Iron, etc.....	3226	2 30
	Engelke & Bigelow.....	Freight and cartage.....	3227	82 51
	T. J. Dundon.....	Lumber.....	3228	5 22
	The Kip Binder.....	Box klips.....	3229	1 50
	Blackwood, Green & Co	Hdw. and galv. iron work.....	3230	54 18
	Cen. Elect. Co.....	Elect. supplies.....	3231	14 90
	Marcellus Staley.....	44½ hours work @ 10c.....	3232	4 45
	E. E. Graham.....	23½ " " 12½c.....	3233	3 46
	C. E. Lee.....	49 " " 12½c.....	3234	5 94
	L. R. Krumm.....	29 " " 10c, 4 hours @ 12½c.....	3235	3 40
	C. H. Crumley.....	16½ hours work @ 10c.....	3236	1 67
	J. H. Randall.....	89 " " \$2.50.....	3237	22 25
	C. H. Woodruff.....	Carpenter work.....	3238	74 70
	Babcock & Wilcox Co...	12 16-tubes @ 4½.....	3239	48 00
	H. Braun Sons & Co.....	Lard oil, lead, etc.....	3240	4 20
	Hanna Paint Mfg. Co...	Paint, etc.....	3241	2 10
	A. S. W. Huffman.....	Syphon bowl, etc.....	3242	8 95
	C. A. Oare.....	Repairing chimneys, etc.....	3243	31 90
	H. Chantler.....	13 days' work @ \$1.50.....	3244	19 50
	Col Coal & Lime Co.....	1 barrel lime cement.....	3245	2 50
	Geo. Tiemann.....	2 dynamometers.....	3246	51 00
	Col. Wire and Iron Wks	Wire matting.....	3247	7 00
	Void.....	.....	3248	.....
	Narragansett Mch Co...	Equipment gymnasium.....	3249	63 15
	Tracy-Wells Co.....	Brushes.....	3250	7 50
	D. C. Beggs & Co.....	Screens and rug.....	3251	25 35
	A. G. Spalding & Bro...	Gymnasium equipment.....	3252	747 21

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Mar. 2	Standard Oil Co.....	Oils.....	3253	\$28 10
	Webb Sta. & Ptg. Co.....	Office supplies.....	3254	5 85
	Postal Telegraph Co.....	Messages.....	3255	54
	E. S. Johnson.....	21 hrs. wk. @ 10c.....	3256	2 10
	Robt. Butterworth.....	20½ ".....	3257	2 03
	J. McLain Smith.....	Exp. meeting March 2, 1898..	3258	6 70
	Am. Dist. Teleg. Co.....	Message service.....	3259	55
	C. O. Paper Co.....	Paper.....	3260	20 50
	E. Cook & Bro.....	50 copies Dispatch.....	3261	1 50
	L. B. Powell.....	21 hrs. wk. @ 10c.....	3262	2 10
	D. K. Starbuck.....	39½ ".....	3263	3 95
	C. R. Stauffer.....	37 ".....	3264	3 70
	Fkl. Typewriter Agcy.....	Ribbon.....	3265	75
	W. S. Orvis.....	Ink, muc., paper, etc.....	3266	2 39
	C. O. Oil Co.....	1 bbl. oil.....	3267	9 97
	W. U. Teleg. Co.....	Messages.....	3268	8 95
	Col. Transfer Co.....	Carriage service.....	3269	4 50
	D. C. Beggs Co.....	Screens loaned.....	3270	5 25
	H. Powell.....	32 hrs. work.....	3271	4 80
	A. McLaughlin.....	3 ".....	3 72	1 20
	E. G. Oberlin.....	62 hrs. as guide, etc.....	3273	7 75
	C. E. Barnet.....	Amanuensis work.....	3274	4 50
	R. J. Seymour.....	24 hrs. guide, etc.....	3275	3 00
	F. C. McKinney.....	73 ".....	3276	9 12
	F. R. West.....	84 ".....	3277	10 50
	Champlin Ptg. Co.....	Booklets, reports, etc.....	3278	30 85
	Ohio S. S. & C. Eng.....	Advertising.....	3279	10 00
	Agr. Std. Pub. Co.....	375 copies Feb. issue.....	3280	18 75
	Westbote Co.....	Ptg. exam. questions, etc.....	3281	5 75
	Murray City Coal Co.....	Coal del. in Feb., 1898.....	3282	910 59
	O. A. Davis.....	208½ hrs wk. @ 17½c, and 3½ hrs. @ 9c., elec. plant.....	3283	36 26
	W. B. Kirkpatrick.....	212 hrs. wk. @ 12½c. and 1½ hrs. @ 9c., elec plant.....	3284	26 41
	A. E. Loeb.....	77 hrs. wk. @ 17½c. and 1½ hrs. @ 9c., elec. plant.....	3285	13 39
	E. G. Webster.....	75½ hrs. wk. @ 12½c.....	3286	9 47
	Jas. Stainbrook.....	25d as fireman @ \$1.50.....	3287	37 50
	T. Boude.....	27d ".....	3288	40 50
	M. Peck.....	28d in boiler room @ \$1.50.....	3289	42 00
	Wm. Case.....	26d T. H. heating @ \$1.50.....	3290	40 20
	W. Griffith.....	20d @ \$1 50, janitor.....	3291	30 00
	T. Algeo.....	28½d @ \$1.50, heating Bio. building.....	3292	42 75
	Joe. Garrettson.....	24d @ \$1.50, helping plum- ber.....	3293	36 00
	Chas. Pixler.....	24½d @ \$1.50, in boiler room..	3294	36 75
	H. Cole & Co.....	Magnifying glass.....	3295	95
	F. Charles.....	Hauling.....	3296	1 25
	Brown & Sharp Mfg. Co.	Metal can.....	3297	1 35
	Metni. Metal Co.....	Tin meter, etc.....	3298	6 04
	Lukenheimer Co.....	Regrinding globe valve.....	3299	33
	Schaffer & Budenberg.....	Thermometers.....	3300	11 60
	Hanna Paint Mfg. Co....	Red lead.....	3301	3 80
	H. Judd.....	40 hrs. @ 25c.....	3302	10 00

STATEMENT II--Continued.

Date.	To whom made.	For what purpose.	No.	Amount.
1898.				
Mar. 2	C. E. Barnet.....	42½ hrs. @ 20c, as stenog.....	3303	\$8 50
	C. J. Morrow	5 hours @ 12½	3304	38
	John Kane	164½ hrs. @ 12½c	3305	20 56
	E. H. Bailey.....	42½ hrs. @ 15c, mach. shop.....	3306	6 38
	A. F. Hall.....	1 mo. @ \$60, as machinist.....	3307	60 00
	Hayden Sad. Hdw. Co. .	Hardware ..	3308	12 00
	Col. Gas Co	Coke.....	3309	25 22
	Barger Bros & Co.....	Material and labor rep. smoke stack ..	3310	4 38
	J. McAllister	Labor dep. ceramics.....	3311	51 45
	Edw. Orton, Jr.	Bill paid bricklayer.....	3312	4 50
	Sells Vehicle Co.....	Sprocket locks and postage...	3313	1 90
	A. H. McIntyre.....	41½ hours work @ 10c electric plant.....	3314	4 15
	M. C. Hunter.....	32½ hours work @ 10c electric plant	3315	3 28
	Cen. Ohio Paper Co.....	Paper	3316	3 60
	Oscar Erf	214 hours work @ 15c	3317	32 10
	Champlin Ptg. Co	Reports, score cards, etc.....	3318	12 50
	W. E. Chappell	24½ hours wk. @ 15c, car fares 30c, electric plant.....	3319	3 98
	F. S. Johnston.....	96 hours work @ 12½c	3320	12 09
	N. F. Pheneger	Milk	3321	151 43
	Warren Atkinson	18½ hours work @ 10c	3322	1 85
	P. Hayden S. Hdw. Co..	Hardware.....	3323	32 48
	H. Braun Sons & Co.....	10 lb charcoal.....	3324	1 00
	Jeffrey Mfg. Co.....	10½ pounds letheroid	3325	4 40
	E. H. Bailey.....	27½ hours work @ 15 cents in shops.....	3326	4 12
	J. H. Nold.....	106 hours work @ 15c in mach shops.....	3327	15 90
	F. Charles.....	Hauling iron and coke.....	3328	2 00
3	W. Erdman	82 hours work @ 17½c mach. shops	3329	14 35
	J. H. Lesh.....	55 hrs. work @ 15c light pt ...	3330	8 25
	D. C. Beggs Co	Rubber matting, etc.....	3331	30 41
	Hasbrook & Byers.....	Dishes, etc.....	3332	32 68
	Burrows Bros. Co.....	History of Banking.....	3333	21 60
	Col. Macadam Co.....	Crushed stone.....	3334	23 19
5	L. B. Wing	Expenses as trustee, Feb. 9th to March 3, 1898.....	3335	15 50
3	C. H. Clevenger.....	12 hrs. work @ 12½c on campus	3336	1 50
	H. L. Belden	13 hrs. labor @ 12½c ..	3337	1 63
	A. F. Wilcox	34 hrs. work @ 15c ..	3338	5 10
	J. F. Roberts	14 lessons to band.....	3339	28 00
	J. T. Martin	Cash paid as per attached bills ..	3340	2 11
	H. W. Pillow	3 cases rifles delivered.....	3341	1 00
	W. I. Chamberlain.....	Expenses meeting of trustees March 3, 1898	3342	16 35
	Bausch & Lomb Op. Co	Aluminum cell.....	3343	6 00
	Bruno Hessling	Plastic ornaments	3344	19 00
	R. Osborn.....	4 hours work @ 12½c in library	3345	50
	Lucy Allen.....	96 hrs. work @ 12½c in library	3346	12 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898, March 3	L. T. Williams.....	9 nights work at 33 $\frac{1}{2}$ c and 60 hours at 12 $\frac{1}{2}$ c. in library...	3347	\$10 50
	D. C. Heath & Co.....	Bruces "Sight Translations"...	3348	10 12
	H. E. Brown & Sons.....	Printing, etc.....	3349	12 81
	University Pub. Co.....	Book.....	3350	60
	Col. Rubber & Beltg. Co.....	Bushings, valve, etc.....	3351	84
	Ruggles-Gale Co.....	Postal scale, etc.....	3352	7 85
	Col. Cab. Co.....	2 tables.....	3353	16 00
	M. G. Blose.....	63 hrs. wk. at 10c.....	3354	6 30
	Cap. City Mch. Works..	15 brackets.....	3355	90
	A. L. Baker.....	6 doz. $\frac{3}{8}$ balls.....	3356	1 50
	J. M. & W. Westwater...	Fittings and fixtures.....	3357	2 40
	Seraphim B. Book Co...	Making covers.....	3358	7 00
	Col. Gas Co.....	Gas used in February, 1898....	3359	131 25
	E. A. Cole & Co.....	Smithing coal.....	3360	3 11
	B. R. Waight.....	Hobbles, etc.....	3361	40 00
	J. H. rtner.....	57 $\frac{1}{2}$ hours at 10c.....	3362	5 72
	R. R. Dunlap.....	23 $\frac{1}{2}$ hours at 10c.....	3363	2 35
	G. E. Stechert.....	Book.....	3364	8 20
	J. L. Trauger.....	Binding books.....	3365	2 25
	L. Riddle.....	29 hrs. at 15c. bot. museum...	3366	4 35
	E. L. Fulmer.....	84 $\frac{1}{2}$ " ".....	3367	12 67
	W. B. Calkins.....	98 " storeroom.....	3368	14 70
	N. P. Oglesby.....	46 " ".....	3369	6 90
	Riehle Bros.....	Fittings and test mch.....	3370	181 00
	E. M. Van Harlingen...	Laboratory supplies.....	3371	16 85
	Richards & Co.....	Slides, boxing, etc.....	3372	13 77
	Landon Ptg. & Pub. Co.....	Circulars, etc.....	3373	16 70
	Ohio Agr. Exp. Sta.....	600 pounds tankage, etc.....	3374	7 44
	John Cain.....	94 $\frac{3}{4}$ hrs. wk. at 10c.....	3375	9 30
	A. T. Kasely.....	16 hours work at 12 $\frac{1}{2}$ c., 42 hrs. at 15c.....	3376	8 30
	T. J. Godfrey.....	Expense meeting this day.....	3377	9 35
	M. Zimmerman.....	Serv. dept. dom. science.....	3378	3 00
	D. C. Huddleson.....	208 hrs. at 20.....	3379	41 60
	Grace Eagleson.....	21 hrs. at 20c.....	3380	4 20
	Hatton Bros.....	Supplies gymnasium.....	3381	5 60
	Champlin Ptg. Co.....	Printing cards, etc.....	3382	49 20
5	H. E. Kennedy, Supt....	Pay roll, workmen.....	3383	294 05
	J. T. Mack.....	Ex. meeting, March 2, 3, 1898, tel. bill Jan. and Feb. 1898..	3384	25 63
7	H. Chantler.....	Janitor wk. lib., 14 d. at \$1.50..	3385	21 00
	Lucy Allen.....	Salary for February, 1898.....	3386	20 00
10	H. E. Kennedy.....	Service Supt.....	3387	349 75
11	M. Zimmerman.....	Serv. dept. dom. science.....	3388	3 00
	W. B. Kirkpatrick.....	106 $\frac{1}{2}$ hours work at 12 $\frac{1}{2}$ c.....	3389	13 28
17	F. A. Burt.....	Recording Page deed.....	3390	2 00
	H. J. Noyes.....	Salary for March, 1898.....	3391	166 68
	M. Zimmerman.....	Serv. dept. dom. science.....	3392	3 00
19	H. E. Kennedy, Supt...	Pay roll, laborers this day.....	3393	214 35
20	T. F. Hunt.....	$\frac{1}{10}$ salary March inst., 1898.....	3394	250 00
	H. A. Weber.....	" ".....	3395	225 00
	A. M. Bleile.....	" ".....	3396	225 00
	W. A. Kellerman.....	" ".....	3397	225 00
	C. N. Brown.....	" ".....	3398	225 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Mar. 23	C. B. Fredericks.....	10 salary March inst., 1898.....	3399	\$25 00
26	A. C. Barrows.....	" "	3400	225 00
	Edw. Orton.....	" "	3401	225 00
	E. A. Eggers.....	" "	3402	225 00
	J. R. Smith.....	" "	3403	225 00
	G. W. Knight.....	" "	3404	225 00
	E. A. Hitchcock.....	" "	3405	150 00
	W. R. Lazenby.....	" "	3406	225 00
	S. C. Derby.....	" "	3407	225 00
	R. D. Bohanan.....	" "	3408	225 00
	W. T. Magruder.....	" "	3409	225 00
	J. P. Gordy.....	" "	3410	225 00
	W. H. Scott.....	" "	3411	225 00
	B. F. Thomas.....	" "	3412	225 00
	J. V. Denney.....	" "	3413	225 00
	B. L. Bowen.....	" "	3414	225 00
	D. S. Kellicott.....	" "	3415	225 00
	A. L. Williston.....	" "	3416	225 00
	N. W. Lord.....	" "	3417	200 00
	G. B. Kauffman.....	" "	3418	200 00
	Wm. McPherson.....	" "	3419	200 00
	F. A. Ray.....	" "	3420	200 00
	Edw. Orton, Jr.....	" "	3421	180 00
	J. N. Bradford.....	" "	3422	180 00
	G. W. McCoard.....	" "	3423	160 00
	C. P. Linhart.....	" "	3424	160 00
	H. C. Lord.....	" "	3425	150 00
	W. D. Gibbs.....	" "	3426	140 00
	Perla G. Bowman.....	" "	3427	140 00
	F. C. Caldwell.....	" "	3428	140 00
	D. S. White.....	" "	3429	140 00
	S. A. Norton.....	" "	3430	120 00
	R. I. Fulton.....	" "	3431	120 00
	Olive B. Jones.....	" "	3432	120 00
	J. E. Boyd.....	" "	3433	110 00
	C. E. Sherman.....	" "	3434	100 00
	T. E. French.....	" "	3435	100 00
	C. W. Mesloh.....	" "	3436	100 00
	F. C. Clark.....	" "	3437	100 00
	W. H. Siebert.....	" "	3438	100 00
	A. W. Hodgman.....	" "	3439	100 00
	J. R. Taylor.....	" "	3440	100 00
	J. A. Bownocker.....	" "	3441	90 00
	W. A. Knight.....	" "	3442	90 00
	C. W. Weick.....	" "	3443	90 00
	C. C. Sleffel.....	" "	3444	90 00
	C. W. Foulk.....	" "	3445	85 00
	C. L. Arnold.....	" "	3446	85 00
	K. D. Swartzel.....	" "	3447	85 00
	C. A. Dye.....	" "	3448	85 00
	J. S. Hine.....	" "	3449	85 00
	J. H. Schaffner.....	" "	3450	80 00
	Clark Wissler.....	" "	3451	80 00
	W. L. Graves.....	" "	3452	80 00
	C. A. Bruce.....	" "	3453	80 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Mar. 26	Jas Kelley.....	Salary March 1898.....	3509	\$41 67
	J. H. Brown.....	" "	3510	40 00
	M. H. Cook.....	" "	3511	40 00
	W. Whitestone.....	" "	3512	40 00
	D. D. Geren.....	" "	3513	40 00
	F. B. Brewer.....	" "	3514	40 00
	J. E. Adams.....	" "	3515	40 00
	J. Conrad.....	" "	3516	40 00
	F. W. Prentiss.....	" "	3517	33 33
	Wash. Townsel.....	" "	3518	30 00
	Edw. Stalter.....	" "	3519	20 00
	Wm. Weir.....	" "	3520	20 00
	Void.....	.....	3521	.....
25	M. Zimmerman.....	Service one week dept. dom. science.....	3522	3 50
26	H. Chantler.....	to salary March inst., 1898.....	3523	40 00
26	Lucy Allen.....	Service as curator archaeological collection.....	3524	20 00
April 1	M. Zimmerman.....	Service one week dept. dom. science.....	3525	3 00
2	H. E. Kennedy, supt.....	Pay roll workmen this day.....	3526	141 5
7	Bausch & Lomb Opt. Co	Boxes, slips, etc.....	3527	10 13
	Bissell Dodge & E. Co..	Crowfoot zines.....	3528	1 05
	Blackwood, Green & Co	Hardware.....	3529	1 05
	Kauffman-Lattimer Co..	Chemicals.....	3530	337 74
	Schaffer & Bundenberg	Counters, chemical thermometer, etc.....	3531	90 73
	Cap. City Mch. Works..	Pulley belts, etc.....	3532	23 21
	Col. Supply Co.....	Hardware.....	3533	31 25
	Sheerwood Mfg. Co.....	Pipe, nut and strainer.....	3534	1 60
	Kimball & Mathews.....	Dry plates, etc.....	3535	4 42
	Col. Merch. Co.....	1 60-gallon galvanized gasoline tank.....	3536	3 25
	C. G. Bradley.....	1 gallon copper measure.....	3537	95
	L. L. Starrett & Co.....	Surface gauge and speed indicator.....	3538	6 90
	Nitschke Bros.....	Ink, blank slips, etc.....	3539	85
	E. H. Bailey.....	133.5 hours @ 15c.....	3540	20 00
	A. F. Hall.....	1 month work @ \$60.....	3541	60 00
	H. Judd.....	10 hours @ 25c carp. work.....	3542	2 50
	C. Riddle.....	6 hours @ 15c.....	3543	90
	Seraphim B. Book Co..	Binding books.....	3544	124 05
	G. W. Knight.....	Books bought.....	3545	1 80
	Am. Inst. Elect. Eng....	Subscriptions transactions.....	3546	5 00
	Burrows Bros. Co.....	Books per invoice.....	3547	43 28
	R. R. Bowker.....	Annual Literary Index.....	3548	3 50
	Seraphim B. Book Co..	Books.....	3549	41 15
	G. Stechert.....	Books per invoices.....	3550	55 55
	Schoedinger, Fearn & Co	Hardware.....	3551	10 55
	Cent. Ohio Paper Co.....	Paper.....	3552	1 44
	Col. Paint Mfg. Co.....	1 can paint.....	3553	25
	Col. Ed. Elect. Light Co	Cleats and carbons.....	3554	1 12
	Elect. Appliance Co.....	Electrical supplies.....	3555	24
	Tallmadge Hardware Co	Hardware.....	3556	7 12
	Blackwood, Green & Co	Conductor, etc.....	3557	1 45
	Andrew Earl.....	Fittings.....	3558	3 85

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
April 7	Columbus Supply Co...	Fittings.....	3559	\$12 24
	A. A. Griffing Iron Co..	Valve	3560	5 00
	Col. Rubber & Belt. Co.	"	3561	1 05
	Palmer & Beck	Galv. iron, labor, etc.....	3562	11 71
	Columbus Brass Co.....	Brass bolts, etc.....	3563	65
	Cap. City Mch. Works..	Fittings, etc.....	3564	17 54
	Col. Sewer Pipe Co	3 sacks cement	3565	1 00
	Wheeler Cond. & E. Co	Set rubber valves.....	3566	7 95
	C. E. Lee.....	12 hours @ 12½c	3567	1 25
	W. Staley	29 hours @ 10c	3568	2 90
	Warren Atkinson	6 hours work @ 10c	3569	50
	M. C. Hunter.....	26 "	3570	2 60
	E. G. Webster.....	32 " 12½c	3571	4 00
	John Cain	41½ " 10c	3572	4 18
	R. E. McIntosh.....	65 " 12½c	3573	8 12
	R. R. Dunlap.....	12½ " 10c	3574	1 25
	Robt. Butterworth.....	12 " 10c	3575	1 20
	D. K. Starbuck.....	9½ " 10c	3576	93
	A. T. Kaseley.....	20 " 15c	3577	3 00
	John Hertner.....	8½ hours work @ 12½c., 25 hrs. @ 10c	3578	3 56
	Mitchell Adv Co	4 months subscription time card	3579	1 00
	W. U. Teleg. Co.....	Messages.....	3580	3 59
	Monypeny Ham. Co.....	6 doz Ivory	3581	4 00
	H. A. Getz	Palm leaves etc	3582	4 50
	Nitschke Bros.....	White imp. book.....	3583	1 25
	Miller Furn. Co	4 oak tables, etc	3584	27 50
	A. D. Telegraph Co.....	Messages.....	3585	25 95
	L. B. Wing.....	Expense meeting, March 18, April 7, 1898.....	3586	20 00
	Fkl. Toilet Supply Co..	Towels, main bldg., etc	3587	1 75
	Blackwood, Green & Co	Hardware	3588	3 10
	Green, Joyce & Co.....	6 dozen towels	3589	7 50
	Cent. Ohio Paper Co.....	Paper	3590	1 50
	Tallmadge Hdw. Co.....	Hardware	3591	1 90
	Leonard & Ellis.....	1 barrel oil	3592	16 25
	Tracy-Wells Co.....	Dusters, maps, etc	3593	13 14
	Standard Oil Co.....	Oil	3594	9 50
	Postal Tel. Cable Co.....	Messages	3595	5 21
	C. E. Barnett.....	Amanuensis work.....	3596	9 52
	Mrs. Myers.....	Laundry work	3597	80
	F. R. West	83 hrs. guide service, etc ...	3598	10 37
	J. R. Smith.....	Expense attending Mrs. Page's funeral	3599	1 75
	E. G. Oberlin.....	67 hours guide, etc.....	3600	8 37
	R. J. Seymour.....	65 "	3601	8 12
	W. G. Worcester.....	28 lantern slides.....	3602	8 40
	A. McLaughlin	49 hours record work.....	3603	7 35
	Engelke & Bigelow.....	Freight and cartage.....	3604	23 72
	Alexis Cope	Expense, trip to Portsmouth, and Mrs. Page's funeral.....	3605	11 15
	C. H. Woodruff.....	Carpenter work	3606	50 27
	G. E. Stechert.....	Books	3607	20 46
	Hann & Adair.....	500 letter heads.....	3608	2 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
April 7	E. J. McNamara	Lanterns	3609	\$65 00
	Paul Steam System Co..	Contract balance	3610	525 00
	M. L. Blose	90 hours @ 12½c. and 17½ hours @ 10c	3611	7 91
	J. R. Spurrier	112½ hours work, etc	3612	23 05
	Bissell Dodge & E. Co..	Supplies	3613	14 14
	H. Braun Sons & Co.....	Thermo. cantery, etc	3614	30 68
	Tallmadge Hdw. Co.....	Hardware	3615	13 30
	Sparhawk & Detchon...	Horses for dissection	3616	15 93
	Journal Com., Med. & Vet. Archives	Advertisement	3617	8 50
	Henry Goldsmith	Music, etc	3618	11 05
	E. O. Neski	10 lessons, band	3619	20 00
	M. C. Lilley Co.....	Swords, belts, etc	3620	37 25
	T. J. Godfrey	Exp. meeting April 7, 1898....	3621	14 50
	Maggie Zimmerman....	1 week's services department domestic science	3622	3 50
	W. I. Chamberlain	Exp. meeting April 7, 1898....	3623	22 85
	F. C. McKinney	64 hours guide	3624	8 00
	J. C. Britton	90 hours work @ 15c	3625	13 50
	J. A. Thompson	12 " 12½c	3626	1 50
	J. C. Perry	65 " 12½c	3627	8 13
	M. Peck	31 days work @ \$1.50	3628	46 50
	Thos. Algeo	36 days @ 8½ hrs. @ \$1.50	3629	40 27
	Thos. Bonde	31 days @ \$1.50	3630	46 50
	Jas. Stainbrook	31 days work @ \$1.50	3631	46 50
	Joe Garretson	23 "	3633	34 50
	Chas. Pixler	29 "	36 3	43 50
	W. H. Case	27 "	3634	40 50
	Benj. Rushmer	Fittings, etc., & horse shoeing	3635	18 30
	Franklin Toilet Sup. Co.	Furn. towels Towns. Hall....	3636	4 13
	A. W. Kiler	Drugs, chemicals, etc	3637	3 41
	Wellington Box Co	Boxes, etc	3638	4 75
	J. F. Williams & Sons...	2,000 pounds gluten meal	3639	16 69
	Heskett Bros	Material and labor on crates..	3640	3 00
	J. E. Wing	Making three crates	3641	2 25
	O. Erf	75 hours work @ 15c	3642	11 25
	J. Shawver	Lecture "Barn Building" and expenses	3643	14 40
	H. P. Miller	4 days lecturing @ \$3, exp. \$4	3644	16 00
	F. S. Johnston	111 hours cler. work @ 12½c..	3645	13 87
	Jeffrey Mfg. Co	2 car loads coal	3646	25 66
	Murray City Coal Co....	Coal	3647	739 30
	E. A. Cole & Co	"	3648	3 61
	Jno. McAllister	103 hours work @ 12½	3649	12 87
	Standard Oil Co	30 gallons oil	3650	1 35
	E. S. Lawrence	Printing lab. report	3651	2 00
	W. J. Davidson & Son...	Coal	3652	2 75
	Col. Bolt. Works	Bolts and nuts	3653	1 20
	P. Hayden S. & H. Co ..	Hardware	3654	8 78
	Scott, Foresman & Co ..	1 Virgil Licenses	3655	50
	Raymond Osborn	2 days work arch. museum....	3656	2 00
	The McMillan Co	Books	3657	10 99
	Oxford Un. Press	"	3658	2 51
	Ulmer & Hoff	Tape, etc	3659	8 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
April 7	P. Copland	400 gooseberry bushes.....	3660	\$60 00
	S. V. Peppel	Labor	3661	13 50
	E. T. Fullmer	99 hours work @ 15 c.....	3662	14 85
	Borger Bros. Co.	Smoke stack, etc	3663	33 00
	H. H. Ballard	4 dozen clip binders, etc	3664	5 18
	Richards & Co	Cover glasses.....	3665	5 44
	W. J. Johnston Co.....	2 copies Elec. World.....	3666	60
	O. T. Corson	Adv.....	3667	22 50
	Abr. Thompsons Sons ..	500 reading blanks	3668	1 50
	Hann & Adair.....	Printing, etc	3669	15 35
	Webb Sta. & Ptg. Co ..	Letter heads, env, etc.....	3670	32 00
	Champlin Ptg. Co	Letter heads, etc.....	3671	44 55
	J. B. Allen	Postage on circulars.....	3672	4 00
	Spahr & Glenn.....	Note circulars.....	3673	2 75
	A. H. Smythe.....	Blackboard, etc.....	3674	4 90
	J. P. Friez.....	Max. thermometer	3675	4 50
	Clinton Nat'l Bank	Bill of ex. Kew Observatory...	3676	8 12
	McAllister Mohler Co...	Desk, mirrors, etc.....	3677	81 83
	Jas. Clark	Plastering.....	3678	150 48
	Fkl. Toilet Sup. Co	Towels, gymnasium.....	3679	19 67
	J. R. Hughes & Co.....	Swimming apparatus.....	3680	1 50
	Ohio Furn. Co	1 table	3681	9 00
	D. C. Huddleson.....	Salary assistant dept. phy. training.....	3682	25 00
	Lily Weeks.....	4 weeks work janitress.....	3683	16 00
	N. P. Oglesby	48 hours work @ 15c	3684	7 20
	W. B. Calkins	148 "	3685	17 10
	Bausch & Lomb Op. Co.	Zeiss sec	3686	31 25
	A. H. Smythe.....	Books.....	3687	45 00
	Hager & Graves	Groceries	3688	36 40
	Schoedinger, Fearn & Co	1 scales	3689	3 00
	P. G. Bowman	Sundries purchased	3690	2 88
	A. A. Heller.....	Catalogue American plants...	3691	3 60
	Cambridge Bot. Sup. Co	Biblio. Am. Botany.....	3692	5 00
	O. A. Davis.....	184½ hours work @ 17½c etc...	3693	31 64
	A. E. Loeb	65 "	3694	11 43
	Void	"	3695	
	Blackwood, Green & Co	Hdw & hollowware.....	3696	26 00
	Lucy Allen	116 hours wk. lib. @ 12½c.....	3697	14 50
	L. T. Williams.....	114 hrs. wk. @ 12½c 12 ni. @ 33½	3698	18 25
	Yost & Packard	Serv. as architects.....	3699	3,388 59
	Peters, Burns & Pretz...	"	3700	1,448 46
	Col. Gas Co.....	Gas used during March, 1898..	3701	144 75
	Ohio Pipe Co.....	Threshold plates	3702	1 38
	C. H. Lyon	Switching charges.....	3703	6 00
	T. J. Dundon.....	Lumber	3704	518 68
	R. A. McClure.....	Lumber, drayage, etc	3705	32 50
	Chas. Wuichet & Co.....	Roofing ..	3706	14 75
	Yost and Packard.....	Services as architects Orton Hall	3707	262 50
8	Tallmadge Hdw. Co.....	Hardware	3708	9 21
	Lawrence Press Co	Office stationery.....	3709	11 15
	C. E. Morris & Co.....	Iron	3710	185 25
	Ruggles-Gale Co	Office stationery.....	3711	1 10

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
Apr. 8	Schoedinger, Fearn Co.	Hardware	3712	\$266 99
	Taylor Mantel & G. Co.	Mill work, lumber.....	3713	530 54
	Minnie Rodgers.....	Stenographer	3714	15 40
	S. T. Knight	Sewer contractor, balance.....	3715	62 17
	Fitzpatrick & Hoepfner	Steam heating.....	3716	257 29
	Caldwell & Iseminger..	Lumber, mill work	3717	301 18
	Acme Paving Co.	Cement.....	3718	75 86
	White & Pixler	Elect. work.....	3719	174 18
	F. O. Schoedinger.....	Hardware	3720	326 24
	Col. Sewer Pipe Co.....	Pipe	3721	6 49
	Kilbourne, Jones Co....	Hardware	3722	487 42
	J. W. Coulson & Co.....	Painting, glazing, etc	3723	445 45
	Fish Stone Co.....	Stone	3724	14 85
	Cent. Ohio Paper Co ...	Paper	3725	6 80
	E. J. McNamara	Gas fittings	3726	4 75
	The Rock Plaster Co ...	Order from James Clark for plastering	3727	107 00
	D. C. Beggs & Co.....	Mdse.....	3728	6 21
	Col. Wire and Iron Wks	Wire	3729	15 50
	W. U. Teleg. Co.....	Messages.....	3730	75
	Gilsonite Roof & Pav.Co	Paving rooms.....	3731	235 25
	Von Gerichten Art Glass Co	Lights ceiling Biological build- ing	3732	207 46
	Penn Fuel Co	Cement	3733	8 44
	Orr, Brown & Price.....	Mur. acid.....	3734	4 89
	Col. Brass Co.....	Brass sliding pole, gymnasium	3735	55 00
	Blackwood, Green Co...	Brush	3736	40
	Taylor, Beall & Co.....	Stone	3737	52 50
	The D. C. Beggs Co.....	Curtains, etc	3738	64 48
	W. U. Teleg. Co	Messages.....	3739	1 35
	A. S. W. Huffman	Plumbing	3740	840 57
	G. R. Butler & Co	Mill work, furniture.....	3741	672 89
	J. W. Coulson & Co.....	Lawn tennis court, etc.....	3742	25 39
	Caldwell & Iseminger ..	Lumber.....	3743	185 00
	Taylor Mantel Grate Co.	Fittings.....	3744	279 65
	Col. Wire and Iron Wks	Wire guards.....	3745	4 00
	A. G. Spalding & Bros..	Lockers, gymnasium.....	3746	1,412 77
	McAllister, Mohler & Co	Desks, chairs, etc.....	3747	370 08
	J. T. Mack	Expenses attending meetings April 5, 6, 1898	3748	13 93
9	H. E. Kennedy	Services as superintendent.....	3749	256 39
11	F. M. Senter, P. M.....	600 1c stamps	3750	6 00
14	F. M. Senter, P. M.....	1000 stamped envelopes.....	3751	22 60
16	Maggie Zimmerman.....	1 week labor	3752	3 00
	H. E. Kennedy, Supt...	Pay roll of workmen	3753	125 85
18	C. L. Wattering.....	Hauling.....	3754	6 10
	J. A. Schauck.....	Course of lectures, college of law	3755	100 00
19	Col. Water Works.....	Water rents and charges	3756	513 52
21	Maggie Zimmerman	1 week's work department domestic science	3757	3 00
22	K. Nurian	Salary, Sept., 1898	3758	10 00
55	F. M. Center, P. M.....	800 2c stamps	3759	16 00
30	E. A. Eggers	$\frac{1}{10}$ salary Apr. inst., 1898.....	3760	225 00
28	F. D. Cope	Salary for April, 1898	3761	50 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
April 28	Jean Blackford.....	Salary for April, 1898	3762	\$50 00
30	Edw. Stalter	Salary for May, 1898	3763	20 00
	Edw. Stalter	to salary April inst., 1898.....	3764	20 00
	T. F. Hunt	"	3765	250 00
	H. A. Weber.....	"	3766	225 00
	A. M. Bleile	"	3767	225 00
	W. A. Kellerman	"	3768	225 00
	C. N. Brown.....	"	3769	225 00
	Edw. Orton	"	3770	225 00
	W. F. Hunter.....	"	3771	250 00
	J. R. Smith	"	3772	225 00
	G. W. Knight.....	"	3773	225 00
	W. R. Lazenby	"	3774	225 00
	S. R. C. Derby	"	3775	225 00
	R. D. Bohanan.....	"	3776	225 00
	W. T. Magruder	"	3777	225 00
	J. P. Gordy	"	3778	225 00
	W. H. Scott	"	3779	225 00
	B. F. Thomas.....	"	3780	225 00
	J. V. Denney	"	3781	225 00
	B. L. Bowen.....	"	3782	225 00
	A. L. Williston.....	"	3783	225 00
	N. W. Lord	"	3784	200 00
	G. B. Kauffman.....	"	3785	200 00
	Wm. McPherson.....	"	3786	200 00
	F. A. Ray	"	3787	200 00
	Edw. Orton, Jr.....	"	3788	180 00
	J. N. Bradford.....	"	3789	180 00
	G. W. McCoard.....	"	3790	160 00
	C. P. Linhart	"	3791	160 00
	H. C. Lord	"	3792	150 00
	E. A. Hitchcock	"	3793	150 00
	W. D. Gibbs.....	"	3794	140 00
	P. G. Bowman.....	"	3795	140 00
	F. C. Caldwell.....	"	3796	140 00
	D. S. White.....	"	3797	140 00
	S. A. Norton.....	"	3798	120 00
	R. I. Fulton	"	3799	120 00
	Olive Jones.....	"	3800	120 00
	J. E. Boyd.....	"	3801	110 00
	C. E. Sherman.....	"	3802	100 00
	T. E. French	"	3803	100 00
	C. W. Mesloh	"	3804	100 00
	F. C. Clark	"	3805	100 00
	W. H. Siebert	"	3806	100 00
	A. W. Hodgman	"	3807	100 00
	J. R. Taylor	"	3808	100 00
	J. A. Bownocker.....	"	3809	90 00
	W. A. Knight.....	"	3810	90 00
	C. W. Weick.....	"	3811	90 00
	C. C. Sleffel.....	"	3812	90 00
	C. W. Foulk	"	3813	85 00
	C. L. Arnold	"	3814	85 00
	K. D. Swartzel.....	"	3815	85 00
	C. A. Dye.....	"	3816	85 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
April 30	J. S. Hine.....	to salary April inst., 1898.....	3817	\$85 00
	J. H. Shaffner.....	" "	3818	80 00
	Clark Wissler.....	" "	3819	80 00
	W. L. Graves.....	" "	3820	80 00
	C. A. Bruce.....	" "	3821	80 00
	C. W. Burkett.....	" "	3822	75 00
	W. F. Lavery.....	" "	3823	75 00
	F. Haas.....	" "	3824	75 00
	E. E. Harrold.....	" "	3825	75 00
	A. E. Vinson.....	" "	3826	65 00
	F. L. Landacre.....	" "	3827	65 00
	E. E. Van Harlingen.....	" "	3828	60 00
	T. K. Lewis.....	" "	3829	60 00
	Stella Elliott.....	" "	3830	60 00
	Harriet Townshend.....	" "	3831	55 00
	F. E. Kester.....	" "	3832	55 00
	Maude Jeffrey.....	" "	3833	50 00
	Gertrude Kellicott.....	" "	3834	50 00
	Theo Griffin.....	" "	3835	40 00
	J. T. Martin.....	" "	3836	40 00
	J. R. Spurrier.....	" "	3837	35 00
	M. Dresback.....	" "	3838	30 00
	H. W. Kuhn.....	" "	3839	30 00
	H. Judd.....	" "	3840	30 00
	J. H. Fox.....	" "	3841	30 00
	C. T. Morris.....	" "	3842	30 00
	J. F. Cunningham.....	" "	3843	30 00
	J. G. Boyd.....	" "	3844	25 00
	C. B. Fredericks.....	" "	3845	25 00
	Void.....	" "	3846	
	F. Fischer.....	" "	3847	20 00
	F. O. Clement.....	" "	3848	20 00
	A. V. Bleining.....	" "	3849	20 00
	J. A. Thompson.....	" "	3850	13 50
	O. A. Davis.....	" "	3851	10 00
	W. E. Chappell.....	" "	3852	10 00
	H. Gamper.....	" "	3853	10 00
	K. Nurian.....	" "	3854	10 00
	E. E. Somermeier.....	" "	3855	10 00
	W. H. Page.....	" "	3856	135 00
	E. B. Kinkead.....	" "	3857	100 00
	D. F. Pugh.....	" "	3858	70 00
	E. O. Randall.....	" "	3859	65 00
	G. W. Knight.....	" "	3860	25 00
	F. F. D. Albery.....	" "	3861	15 00
	J. H. Collins.....	" "	3862	10 00
	J. H. Canfield.....	Salary for April, 1898.....	3863	500 00
	Alexis Cope.....	" "	3864	187 00
	W. C. McCracken.....	" "	3865	125 00
	G. R. Rose.....	" "	3866	65 00
	W. R. Beattie.....	" "	3867	54 00
	Edith Cockins.....	" "	3868	54 00
	Chas. Low.....	" "	3869	54 00
	M. Zimmerman.....	Serv.dorm. 2 wks. 4-28 to 5, '98	3870	6 00
	C. B. Hine.....	Salary for April, 1898.....	3871	50 00
	A. Chantler.....	" "	3872	45 00

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STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
April 30	Wm. Standley.....	Salary for April, 1898.....	3873	\$45 00
	Benj. LeBay.....	" ".....	3874	45 00
	H. Martz.....	" ".....	3875	45 00
	Jas. Kelly.....	" ".....	3876	41 67
	J. H. Brown.....	" ".....	3877	40 00
	M. H. Cook.....	" ".....	3878	40 00
	W. Whitestone.....	" ".....	3879	40 00
	D. D. Geren.....	" ".....	3880	40 00
	F. B. Brewer.....	" ".....	3881	40 00
	John Adams.....	" ".....	3882	40 00
	John Conrad.....	" ".....	3883	40 00
	F. W. Prentiss.....	" ".....	3884	33 33
	Wash. Townshend.....	" ".....	3885	30 00
	Wm. Weir.....	" ".....	3886	20 00
	H. Chantler.....	" ".....	3887	40 00
29	D. M. Massie.....	Expenses as trustee February 4, 1898, to date.....	3888	17 50
30	A. C. Barrows.....	$\frac{1}{10}$ salary April inst., 1898.....	3889	225 00
	H. E. Kennedy, supt.....	Pay roll of workmen.....	3890	42 80
	C. L. Wattering.....	Grading about Arm. and Gym.....	3891	131 10
	Lucy Allen.....	$\frac{1}{10}$ salary April inst., 1898.....	3892	20 00
May 5	Burrows Bros. Co.....	Books.....	3893	21 84
	Helman-Taylor.....	Books.....	3894	24 25
	Psychological Review.....	Sub-cription.....	3895	75
	Houghton, Mifflin & Co.....	Set Lowell, 11 vols.....	3896	22 00
	Seraphim B. Book Co.....	Books.....	3897	28 50
	Champlin Ptg. Co.....	Lib. cards printed, etc.....	3898	4 50
	Library Bureau.....	Tips, rubber, etc.....	3899	16 40
	Cent. Ohio Paper Co.....	Scratch pads, etc.....	3900	85
	Boston Book Bind'g Co.....	Binder and postage.....	3901	1 11
	Office Specialty Co.....	Index library, ect.....	3902	37 90
	G. E. Stechert.....	Books.....	3903	70 91
	B. D. Potts.....	Furnace burner.....	3904	25
	General Elect. Co.....	Clear globes, etc.....	3905	3 75
	M. C. Hunter.....	4½ hours @ 10c., 22¾ hours @ 12½c.....	3906	3 29
	W. I. Chamberlain.....	Exp. meeting board and com.....	3907	14 70
	D. C. Huddleson.....	Assistant, physical training, April, 1898.....	3908	25 00
	C. W. Woodruff.....	Carpenter work.....	3909	4 16
	Champlin Ptg. Co.....	Summer school folders.....	3910	67 65
	C. H. Evans & Co.....	Advertising.....	3911	5 00
	The Lantern.....	Advertising.....	3912	90 00
	Hann & Adair.....	Vouchers, tickets, etc.....	3913	20 40
	Col. Supply Co.....	Fittings.....	3914	10 84
	Schoedinger, Fearn Co.....	Fittings.....	3915	11 21
	Tallmage Hardware Co.....	Hardware.....	3916	1 62
	Vogelgesang Furn. Co.....	Repairing furnace.....	3917	28 90
	Blackwood, Green & Co.....	Labor, tin, solder, etc.....	3918	3 42
	Columbus Brass Co.....	Piston for syphon.....	3919	50
	D'Este & Seely Co.....	1 balanced trap.....	3920	2 50
	O. A. Davis.....	35¾ hours work @ 17½c.....	3921	6 25
	Babcock & Wilcox Co.....	Fire door, tile, etc.....	3922	28 90
	J. C. Perry.....	118 hours work @ 21½c.....	3923	14 75
	A. F. Wilcox.....	40 hours work @ 15c.....	3924	6 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
May 5	J. C. Britton	84 hours work @ 15c.....	3925	\$12 60
	W. Gilmore.....	69 " " 12½c.....	3926	8 62
	H. L. Belden.....	21 " "	3927	2 63
	Jay Palmer.....	20 " "	3928	2 50
	J. G. Ridinger.....	19 " "	3929	2 38
	J. A. Thompson.....	46 " "	3930	5 75
	F. C. Kettler.....	18 " "	3931	2 25
	A. F. Conrade.....	10 " "	3932	1 25
	E. S. Ream.....	40 " "	3933	5 00
	A. W. Livingston's Sons	Seeds, etc.....	3934	21 71
	J. R. Smith.....	Expenses visiting Wilmington high school.....	3935	5 25
	W. S. Orvis.....	1 dozen sheets carbon paper..	3936	50
	E. Faber.....	Pencils.....	3937	94
	O. S. Lear.....	Paper and stencil.....	3938	2 25
	Nitschke Bros.....	Mucilage, ink, etc.....	3939	1 75
	J. H. Canfield.....	Amt. adv. E. H. Oberlin.....	3940	4 07
	C. O. Paper Co.....	Paper.....	3941	19 70
	Ullin & Pfeiffer.....	Photographs.....	3942	51 50
	Standard Oil Co.....	O. I.....	3943	37 90
	Z. L. White & Co.....	Calico, etc.....	3944	69
	J. M. & W. Westwater...	Lantern burner, etc.....	3945	55
	Bakers' Art Gallery.....	Copies crayons.....	3946	34 00
	Cols. Transfer Co.....	Carriage service.....	3947	3 00
	E. F. Charles.....	Funeral decorations.....	3948	1 45
	W. U. Telegraph Co.....	Messages.....	3949	7 55
	L. B. Powell.....	Services, quartermaster, win- ter term.....	3950	5 00
	F. R. West.....	73 hours' work, guide, etc.....	3951	9 12
	F. C. McKinney.....	81 " " "	3952	10 12
	R. J. Seymour.....	75 " " "	3953	9 37
	C. E. Barnett.....	Amanuensis work.....	3954	9 30
	C. U. Telephone Co.....	Telephone service.....	3955	60 00
	C. A. Douglas.....	Brushes and dust gatherers...	3956	7 50
	Murray City Coal Co.....	Coal.....	3957	579 49
	Jeffrey Mfg. Co.....	"	3958	17 26
	M. Peck.....	29½ days work @ \$1.50.....	3959	44 25
	Thos. Bonde.....	30 " "	3960	45 00
	W. H. Case.....	Care, heating T. H.....	3961	36 75
	J. Garretson.....	15 days' work @ \$1.50.....	3962	22 50
	T. B. Algeo.....	208 hours' work @ \$1.50.....	3963	31 20
	J. Stainbrook.....	28 days' work @ \$1.50.....	3964	42 00
	Lucy Allen.....	104 hours work @ 12½c.....	3965	13 00
	J. A. Thompson.....	14 " " "	3966	1 75
	L. T. Williams.....	15 months' work @ 33½c. and 82 hours work @ 12½c.....	3967	15 25
	Blanche Mickey.....	92 hours work @ 5c.....	3968	4 60
	W. B. Calkins.....	84 " " 12c.....	3969	12 60
	N. P. Oglesby.....	34 " " 15c.....	3970	5 10
	E. H. Bailey.....	Janitor mech. hall.....	3971	20 00
	Lily Weeks.....	Janitress, April, 1898.....	3972	16 00
	Baker & Co.....	Platinum, etc.....	3973	3 67
	Rochester Opt. Co.....	Holders, etc.....	3974	30 00
	Blackwood, Green & Co.	Copper baths.....	3975	7 50
	Am. Aristotype Co.....	Photo plates.....	3976	43 58

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
May 5	E. E. Harrold	1 basket ball	3977	\$3 00
	P. Hayden S. H. Co.....	Collar and screws.....	3978	95
	H. Goldsmith.....	Music, band, etc.....	3979	1 80
	C. E. Nicholas	Copperas, jars, etc.....	3980	2 00
	C. W. Fridley.....	Repair instruments.....	3981	1 00
	Lawrence Press Co.....	Ptg. sergeants reports.....	3982	3 75
	M. C. Lilley & Co.....	Rep. swords, belts, etc.....	3983	9 38
	G. D. Cross Lumber Co.	Lumber	3984	6 42
	Tallmadge Hdw. Co.....	Hardware	3985	1 35
	Bissell, Dodge & E. Co.	Wire, etc.....	3986	6 97
	C. H. Woodruff.....	Wire, etc.....	3987	5 35
	Western Elect. Co.....	Switches	3988	2 64
	Col. Supply Co.....	Fittings.....	3989	11 60
	Schaffer & Budenberg..	Thermometers, etc	3990	9 90
	Blackwood, Green & Co.	Hardware	3991	8 00
	Erie Gas Engine Co.....	1 ga. bag.....	3992	4 00
	P. Hayden S. H. Co.....	Brass castings.....	3993	25
	E. H. Bailey.....	45 hrs. wk. @ 15c.....	3994	6 75
	A. F. Hall.....	1 mo. as machinist.....	3995	60 00
	C. E. Barnett.....	Clerical work.....	3996	5 50
	McMillan & Co	Books.....	3997	22 50
	J. R. Smith.....	Expressage	3998	70
	G. E. Stechert.....	Books.....	3999	6 84
	D. S. White.....	Exp. hauling cadaver.....	4000	5 00
	Creamery Pkg. Co.....	Tester	4001	4 75
	A. W. Livingston's Sons	Seeds, etc.....	4002	11 25
	J. Weisheimer.....	Grinding ear corn.....	4003	12 70
6	Fkl. Toilet Sup. Co.....	Towels furnished.....	4004	1 87
	W. R. Beattie.....	Flowers and smilax.....	4005	1 50
	E. R. Graves.....	Moulding, etc	4006	3 90
	E. M. VanHarlingen	Cash expended supplies.....	4007	6 40
	Monypeny, H. Co.....	Blacking	4008	60
	Hatton Bros.....	Acid thermometers, etc.....	4009	1 72
	E. L. Baringer.....	Labeling exhibits.....	4010	2 93
	Mallinckrodt Ch. Wks..	Chemicals.....	4011	57 39
	Kauffman, Lattimer Co.	Chemicals.....	4012	65 51
	Jno. McAllister	72½ hrs. wk.....	4013	10 84
	B. S. Kaolin & F'd Sp'r Co	Feldspar	4014	25 00
	Golding & Sons Co.....	Flint.....	4015	20 47
	Mayer Pottery Co.....	Silkmans spar.....	4016	5 00
	G. Bruder	3 lessons, band	4017	6 00
	J. F. Roberts.....	1 lesson, band	4018	2 00
	E. O. Neske	3 lessons, band	4019	6 00
	E. L. Fullmer	87 hrs. wk. @ 15c.....	4020	13 05
	F. S. Johnston.....	102 hrs. wk. @ 12½c.....	4021	12 75
	J. M. Thorburn & Co.....	Seeds, etc	4022	4 65
	H. Phillips Seed & I. Co.	Seeds, etc.....	5023	4 15
	J. F. Cunningham.....	Circulars, postage, etc.....	4024	3 25
	C. N. Brown.....	Exp. surveying Page farm.....	4025	13 40
	Fitzpatrick & Hoepfner	Plumbing and heating.....	4026	800 00
	White & Pixley.....	Electrical work.....	4027	275 00
	Champion Iron Co.....	Iron work.....	4028	944 33
	Webb Sta. & Ptg. Co.....	Paper, etc	4029	7 20
	Col. Rubber & Beltg. Co.	White waste, valves, etc.....	4030	13 14

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898. May 6	T. J. Godfrey.....	Exp. meeting board and com.	4031	\$13 55
	Kelton & Converse.....	Lumber.....	4032	4 06
	Tallmadge Hardware Co	Hardware.....	4033	5 26
	Fkl. Toilet Supply Co..	Towels furnished.....	4034	8 75
	Bissell, Dodge & E. Co..	Fittings.....	4035	22 10
	Cap. City Machine Wks	Fittings.....	4036	5 57
	Engelke & Bigelow	Freight and cartage.....	4037	42 22
	C. H. Woodruff.....	Carpenter work.....	4038	36 37
	R. E. McIntosh.....	53½ hours @ 12½c.....	4039	6 62
	E. G. Webster.....	59½ hours @ 12½c.....	4040	7 45
	A. E. Loeb.....	175½ hours @ 17½c.....	4041	30 65
	W. E. Chappell.....	11 hours @ 15c.....	4042	1 65
	A. D. Teleg. Co.....	Messenger service.....	4043	1 10
	Fkl. Toilet Supply Co..	Towels furnished.....	4044	19 09
9	Mrs. Valeria Kellicott ..	Salary Prof. D. S. Kellicott to June 30th	4045	675 00
	Columbus Gas Co.....	Gas, April, 1898.....	4046	114 68
	J. T. Mack	Expenses May meeting.....	4047	18 44
	F. M. Senter, P. M.....	1000 1c stamps.....	4048	10 00
16	J. McLain Smith	Exp. meeting, May 5, 1898	4049	20 71
11	D. M. Massie.....	"	4050	7 00
	Seasongood & Mayer...	Int. bond trans., Sept., 1896... ⅓ salary, May and June, 1898..	4051	206 25
12	J. V. Denney	Pay roll workmen.....	4052	450 00
14	H. E. Kennedy, supt.....	Grading about new buildings.	4053	48 50
	C. L. Watterling.....	Expenses meeting May 5 and 6, 1898.....	4054	91 65
19	L. B. Wing.....	Car tickets	4055	6 00
21	Columbus Street Ry. Co	30 10c, 30 5c, 275 2c postage stamps.....	4056	5 00
	F. M. Senter, P. M.....	Interest payable June 1st, in New York City.....	4057	10 00
23	F. W. Prentiss, Cashier.	63 hours work @ 15c.....	4058	3,375 00
24	Leo. Chase	Serv. dept. dom. science.....	4059	9 45
25	M. Zimmerman.....	Exp. attg. meeting this day... "	4060	3 00
	L. B. Wing	Labor in athletic field	4061	6 31
	W. I. Chamberlain.....	Postage stamps.....	4062	14 50
26	C. H. Woodruff.....	Salary for May, 1898.....	4063	106 25
27	F. M. Senter, P. M.....	⅓ salary May inst., 1898.....	4064	22 60
	F. W. Prentiss.....	"	4065	43 34
28	T. F. Hunt	"	4066	250 00
	H. A. Weber.....	"	4067	225 00
	A. M. Bleile	"	4068	225 00
	W. A. Kellerman	"	4069	225 00
	C. N. Brown.....	"	4070	225 00
	A. C. Barrows.....	"	4071	225 00
	Edward Orton.....	"	4072	225 00
	F. A. Eggers	"	4073	225 00
	J. R. Smith	"	4074	225 00
	G. W. Knight	"	4075	225 00
	W. R. Jazenby	"	4076	225 00
	S. C. Derby	"	4077	225 00
	R. D. Bohannan	"	4078	225 00
	W. T. Magruder	"	4079	225 00
	J. P. Gordy.....	"	4080	225 00
	W. H. Scott	"	4081	225 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
May 21	B. F. Thomas.....	1 st salary May, inst., 1898.....	4082	\$225 00
	B. L. Bowen.....	" " " " " " " " " " " "	4083	225 00
	A. L. Williston.....	" " " " " " " " " " " "	4084	225 00
	N. W. Lord.....	" " " " " " " " " " " "	4085	200 00
	G. B. Kauffman.....	" " " " " " " " " " " "	4086	200 00
	W. McPherson.....	" " " " " " " " " " " "	4087	200 00
	F. A. Ray.....	" " " " " " " " " " " "	4088	200 00
	Edw. Orton, Jr.....	" " " " " " " " " " " "	4089	180 00
	J. N. Bradford.....	" " " " " " " " " " " "	4090	180 00
	G. W. McCoard.....	" " " " " " " " " " " "	4091	160 00
	C. P. Linhart.....	" " " " " " " " " " " "	4092	160 00
	H. C. Lord.....	" " " " " " " " " " " "	4093	150 00
	E. A. Hitchcock.....	" " " " " " " " " " " "	4094	159 00
	W. D. Gibbs.....	" " " " " " " " " " " "	4095	140 00
	P. G. Bowman.....	" " " " " " " " " " " "	4096	140 00
	F. C. Caldwell.....	" " " " " " " " " " " "	4097	140 00
	D. S. White.....	" " " " " " " " " " " "	4098	140 00
	S. A. Norton.....	" " " " " " " " " " " "	4099	120 00
	R. I. Fulton.....	" " " " " " " " " " " "	4100	120 00
	J. E. Boyd.....	" " " " " " " " " " " "	4101	110 00
	Olive Jones.....	" " " " " " " " " " " "	4102	120 00
	Edith Cockins.....	Salary for May, 1898.....	4103	54 17
	Jean Blackford.....	" " " " " " " " " " " "	4104	50 00
	C. E. Sherman.....	1 st salary May inst., 1898.....	4105	100 00
	T. E. French.....	" " " " " " " " " " " "	4106	100 00
	C. W. Mesloh.....	" " " " " " " " " " " "	4107	100 00
	F. C. Clark.....	" " " " " " " " " " " "	4108	100 00
28	W. H. Siebert.....	" " " " " " " " " " " "	4109	100 00
	A. W. Hodgman.....	" " " " " " " " " " " "	4110	100 00
	J. R. Taylor.....	" " " " " " " " " " " "	4111	100 00
	J. A. Bownocker.....	" " " " " " " " " " " "	4112	90 00
	W. A. Knight.....	" " " " " " " " " " " "	4113	90 00
	C. W. Weick.....	" " " " " " " " " " " "	4114	90 00
	C. C. Sleffel.....	" " " " " " " " " " " "	4115	90 00
	C. W. Foulk.....	" " " " " " " " " " " "	4116	85 00
	C. L. Arnold.....	" " " " " " " " " " " "	4117	85 00
	K. D. Swartzel.....	" " " " " " " " " " " "	4118	85 00
	C. A. Dye.....	" " " " " " " " " " " "	4119	85 00
	J. S. Hine.....	" " " " " " " " " " " "	4120	85 00
	J. H. Schaffner.....	" " " " " " " " " " " "	4121	80 00
	C. Wissler.....	" " " " " " " " " " " "	4122	80 00
	W. L. Graves.....	" " " " " " " " " " " "	4123	80 00
	C. A. Bruce.....	" " " " " " " " " " " "	4124	80 00
	C. W. Burkett.....	" " " " " " " " " " " "	4125	75 00
	W. F. Lavery.....	" " " " " " " " " " " "	4126	70 00
	F. Haas.....	" " " " " " " " " " " "	4127	70 00
	E. E. Harrold.....	" " " " " " " " " " " "	4128	70 00
	A. E. Vinson.....	" " " " " " " " " " " "	4129	65 00
	F. L. Landacre.....	" " " " " " " " " " " "	4130	65 00
	E. M. Van Harlingen.....	" " " " " " " " " " " "	4131	60 00
	T. K. Lewis.....	" " " " " " " " " " " "	4132	60 00
	Stella Elliott.....	" " " " " " " " " " " "	4133	60 00
	H. Townshend.....	" " " " " " " " " " " "	4134	55 00
	F. E. Kester.....	" " " " " " " " " " " "	4135	55 00
	Maude Jeffery.....	" " " " " " " " " " " "	4136	50 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
May 28	Gertrude Kellicott.....	¹ / ₁₀ salary May inst., 1898	4137	\$50 00
	Theo. Griffin	" "	4138	40 00
	J. R. Spurrier.....	" "	4139	35 00
	M. Dresbach	" "	4140	80 00
	H. W. Kuhn	" "	4141	30 00
	H. Judd.....	" "	4142	30 00
	J. H. Fox.....	" "	4143	30 00
	C. T. Morris.....	" "	4144	30 00
	J. F. Cunningham	" "	4145	30 00
	J. G. Boyd	" "	4146	25 00
	C. B. Fredericks.....	" "	4147	25 00
	Robt. Fischer	" "	4148	20 00
	F. O. Clements.....	" "	4149	20 00
	A. V. Bleininger.....	" "	4150	20 00
	R. E. McIntosh.....	" "	4151	10 00
	W. E. Chappell.....	" "	4152	10 00
	H. Gamper.....	" "	4153	10 00
	K. Nurian.....	" "	4154	10 00
	E. E. Somermier.....	" "	4155	10 00
	W. F. Hunter.....	" "	4156	250 00
	W. H. Page.....	" "	4157	135 00
	E. B. Kinkead.....	" "	4158	100 00
	D. F. Pugh.....	" "	4159	70 00
	E. O. Randall.....	" "	4160	65 00
	G. W. Knight.....	" "	4161	25 00
	F. F. D. Albery.....	" "	4162	15 00
	J. H. Collins.....	" "	4163	10 00
	J. H. Canfield.....	Salary for May, 1898	4164	500 00
	Alexis Cope	" "	4165	187 50
	W. C. McCracken.....	" "	4166	125 00
	G. R. Rose	" "	4167	65 00
	W. R. Beattie	" "	4168	54 17
	Chas. Low	" "	4169	54 17
	C. B. Hine.....	" "	4170	50 00
	A. Chantler.....	" "	4171	45 00
	Wm. Standley	" "	4172	45 00
	B. LeBay	" "	4173	45 00
	Henry Martz	" "	4174	45 00
	Jas. Kelly	" "	4175	41 67
	J. H. Brown	" "	4176	40 00
	M. H. Cook	" "	4177	40 00
	Wm. Whitestone.....	" "	4178	40 00
	D. D. Geren.....	" "	4179	40 00
	F. B. Brewer.....	" "	4180	40 00
	J. E. Adams	" "	4181	40 00
	Jno. Conrad	" "	4182	40 00
	Wash. Townsel	" "	4183	30 00
	W. Weir.....	" "	4184	20 00
	H. Chantler	Services as janitor, May, 1898	4185	40 00
	Lucy Allen	Salary for May, 1898	4186	20 00
	F. M. Senter, P. M.....	Stamps.....	4187	20 00
	F. W. Prentiss, V. Pt.....	10 M. cts. due June 1, '98 and int. 80 M. 6%, due June 1.....	4188	12,400 00
31	F. W. Prentiss, V. Pt.....	Int. due \$150 M. cts. due this day at Clinton Nat. Bank.....	4189	3,375 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
May 31	J. C. Perry	Services as janitor, May 1898..	4190	\$13 50
June 1	J. T. Mack.....	Exp. meeting May 25-26-30...	4191	18 15
	L. B. Wing.....	Exp. meeting ex. com. this day	4192	2 75
	Landon Ptg. & Pub. Co.	Agr. Students Union.....	4193	2 00
	W. H. Case.....	Care heating Towns. Hall.....	4194	15 75
	Jas. Stainbrook.....	Services as fireman.....	4195	39 00
	T. Boude.....	"	4196	46 50
	M. Peck.....	Helper boiler house	4197	45 00
	J. Garretson.....	Services plumber's helper.....	4198	31 50
	F. R. West	Services as guide.....	4199	8 87
	C. E. Barnet.....	Serv. as accountant, etc.....	4200	34 90
	Annis McLaughlin	Work in office of registrar.....	4201	5 77
	Tracy Wells Co.....	2 dozen brooms.....	4202	4 20
	Holcombe & Hoke Co	3 sweepers	4203	4 50
	Monypeny Ham'd Co	Soap	4204	4 00
	Cent. Ohio Oil Co	1 barrel oil	4205	9 97
	Franklin T. Sup. Co.....	Towels.....	4206	1 25
	Z. L. White.....	Cheese cloth	4 07	3 38
	W. S. Orvis.....	Typewriter supplies.....	4208	2 25
	Cher'gt'n Ptg. & Eng. Co.	Rubber stamp.....	4209	50
	Cent. Ohio Paper Co.....	Stationery.....	4210	3 70
	Col. Litho. Co.....	10 \$1,000 bonds	4211	60 00
	G. N. Carman, Tr.....	Dues in N. Cent. As. of Coll.		
		Schools	4212	3 00
	G. H. Young, Tr.....	Dues in Ohio Col. Assoc	4213	5 00
	G. T. Johnson	Toilet paper.....	4214	10 00
	A. J. Seymour	Work as guide.....	4215	7 00
	F. C. McKinney.....	"	4216	10 37
	F. J. Pavlicek.....	"	4217	10 75
	Tallmadge Hdw. Co	Wire nails.....	4218	2 10
	Col. Sewer Pipe Co.....	D-pipe	4219	2 30
	Kelton & Converse	Lumber	4220	200 67
	Wm. McPherson	Labor	4221	5 38
	E. G. Webster.....	"	4222	69
	A. E. Loeb	"	4223	4 20
	J. Cain	"	4224	50
	F. O. Schoedinger	Repair roof Arm. & Gym.....	4225	2 20
	The Kilbourne-Jones Co	Locks and keys.....	4226	8 50
	Acme Paving Co.....	Cement work.....	4227	277 08
	T. J. Dundon & Co	Lumber	4228	6 43
	Engelke & Bigelow.....	Hauling.....	4229	5 00
	Penn. Fuel Co.....	Cement, etc.....	4230	3 43
	Fish Stone Co.....	Steps and curbing.....	4231	35 34
	J. C. Hearn & Co.....	Brass fittings.....	4232	2 50
	Hammond & Sparhawk	Care of horse and laundry.....	4233	11 23
	Elliott & Maclean	4 doors.....	4234	8 00
	H. Braun Sons & Co.....	Drugs and surg. instruments.	4235	8 55
	Haussman & Dunn.....	Surgical instruments	4236	13 05
	Haussman & Dunn.....	"	4237	49 30
	Joe Dusong.....	Carpenter work.....	4238	27 00
	Schoedinger, Fearn & Co	Hardware	4239	14 36
	W. M. Taylor M. & G. Co.	Furniture	4240	27 05
	Minnie Rodgers.....	Typewriting	4241	5 20
	The Ruggles Gale Co....	Stationery	4242	7 00
	J. W. Coulson & Co.....	Hdw., ptg. and glazing	4243	649 27

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
June 1	A. S. W. Huffman.....	Plumbing and gas fitting	4244	\$61 08
	Minnie Rodgers.....	Typewriting	4245	33 60
	Col. Wire & Iron Wks....	Screen	4246	36 50
	G. R. Butler & Co.	Flag pole.....	4247	27 00
	H. C. Kennedy	Serv. as supt	4248	296 20
	A. F. Wilcox	Labor	4249	1 75
	C. L. Wattering.....	Grading.....	4250	10 50
	James Clark	Plastering.....	4251	12 00
	P. Hayden Sd. Hdw. Co.	Steel.....	4252	22 46
	E. A. Kinsey & Co.....	Apparatus.....	4253	14 30
	Case Mfg. Co.....	1 pulley.....	4254	3 25
	Blackwood, Green & Co	Shovels and brackets	4255	4 68
	Pickering Hdw. Co	Screws	4256	17 50
	A. S. W. Huffman.....	Plumbing, steam and gas fit- ting.....	4257	320 28
	J. W. Coulson & Co	Painting and varnishing.....	4258	8 40
	Krauss, Butler & B. Co..	Window shades.....	4259	63 45
	G. R. Butler & Co	Equipment Biol. Building.....	4260	4,227 22
	Saunders & Esswein.....	Equipment plumbing.....	4261	391 56
	E. J. McNamara	Ceiling shades.....	4262	6 00
	Bissell, Dodge & E. Co.	Merchandise	4263	1 10
	Col. Brass Co	"	4264	1 25
	Col. Supply Co	"	4265	2 36
	Cap. City Mch. Wks....	"	4266	27 29
	M. P. Streett	Mason work and cement.....	4267	10 80
	W. E. Chappell	Labor	4268	56
	A. E. McIntosh.....	"	4269	3 68
	A. E. Loeb	"	4270	18 45
	M. C. Hunter	"	4271	1 38
	Kimball & Mathews	Paste, etc.....	4272	13 69
	Green, Joyce & Co.....	Towels	4273	6 50
	J. Carbutt	Lantern plates.....	4274	209 36
	Kauffman, Lattimer Co.	Chem. sup.....	4275	107 53
	W. C. Mills.....	Labor	4276	1 50
	Bausch & L. Opt. Co....	1 lens	4277	26 25
	F. O. Clements	Labor	4278	4 80
	Lucy Allen	"	4279	8 25
	Kny, Scheerer & Co.....	Insect pins	4280	7 00
	Central Electric Co	Merchandise	4281	9 50
	H. Goldsmith.....	Band supplies.....	4282	3 25
	The M. C. Lilley & Co ..	Flag, etc.....	4283	24 48
	C. P. Linhart.....	Incidentals	4284	2 75
	A. G. Spaulding & Bro.	Incline board	4285	6 00
	F. F. Bonnet	1 clock.....	4286	25 00
	Lily Weeks.....	Serv. as janitrix and clerk	4287	24 00
	D. C. Huddleson.....	Labor in gymnasium	4288	25 00
	F. L. Southworth.....	"	4289	2 75
	The Daily Fin. News....	Advertising	4290	15 00
	Champlin Ptg. Co.	Printing	4291	47 25
	Webb Sta. & Ptg. Co....	1 book orders.....	4292	4 50
	O. S. Journal Co.....	Advertising	4293	9 32
	E. E. Graham Co	Labor	4294	4 15
	Engelke & Bigelow.....	Freight and cartage	4295	51 53
	D. L. Auld	Copper	4296	25
	Schoedinger, Fearn & Co	Incidentals	4297	85

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STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
June 1	Talmadge Hdw. Co.....	Hardware	4298	\$3 73
	Blackwood, Green & Co.	Tin boxes.....	4299	3 90
	Cam. Bot. Sup. Co.....	Pill boxes.....	4300	2 00
	Hager & Graves.....	Groceries, etc.....	4301	21 62
	Dunn, Tait & Co.....	Dry goods.....	4302	8 52
	Miller Furn. Co.....	Sideboard, etc.....	4303	49 50
	Col. Pharm. Co.....	Rubber sheeting.....	4304	90
	McAllister-Mohler Co.....	Furniture	4305	14 75
7	J. G. Boyd.....	¹ / ₁₀ salary June inst., 1895.....	4306	25 00
	C. W. Burkett.....	" " ".....	4307	75 00
	S. A. Norton.....	" " ".....	4308	120 00
	A. F. Hall.....	Salary for May, 1898.....	4309	60 00
	W. F. Lavery.....	¹ / ₁₀ salary June inst., 1898.....	4310	70 00
	E. H. Bailey.....	Janitor service M. E. Hall, May, 1898.....	4311	18 83
	Leo Chase.....	Labor on Biol. building.....	4312	10 05
	Columbus Gas Co.....	Gas	4313	129 53
8	C. B. Fredericks.....	¹ / ₁₀ salary for June inst., 1898...	4314	25 00
9	F. D. Cope.....	Salary May 1 to 15, 1898.....	4315	25 00
10	E. L. Fullmer.....	Student assistance.....	4316	16 80
	Supplee Hardware Co.....	1 Penn. mower.....	4317	6 81
	J. G. Ridinger.....	Labor	4318	1 75
	F. E. Fletcher.....	"	4319	8 38
	A. F. Wilcox.....	"	4320	13 05
	H. L. Belden.....	"	4321	4 13
	F. S. Aten.....	"	4322	1 87
	E. S. Ream.....	"	4323	5 38
	F. C. Kettler.....	"	4324	1 50
	J. C. Britton.....	"	4325	19 65
	W. Gilmore.....	"	4326	8 50
	J. C. Perry.....	"	4327	5 25
	J. Conrad.....	Repairs to lawn mower.....	4328	75
	W. H. Gilmore.....	Labor	4329	3 88
	R. Pitts.....	"	4330	4 50
	H. L. Belden.....	"	4331	5 63
	A. F. Wilcox.....	"	4332	4 50
	W. H. Page.....	¹ / ₁₀ salary June inst., 1897.....	4333	135 00
	H. W. Kuhn.....	" " ".....	4334	40 00
	E. M. Van Harlingen.....	" " ".....	4335	60 00
	F. O. Clements.....	" " ".....	4336	20 00
	C. L. Arnold.....	" " ".....	4337	85 00
	H. Judd.....	" " ".....	4338	30 00
	G. W. Knight.....	" " ".....	4339	325 00
	G. W. Knight.....	" " ".....	4340	25 00
	T. K. Lewis.....	" " ".....	4341	60 00
	J. N. Bradford.....	" " ".....	4342	180 00
	W. L. Graves.....	" " ".....	4343	80 00
	T. F. Hunt.....	" " ".....	4344	250 00
	H. A. Weber.....	" " ".....	4345	220 00
	A. M. Bleile.....	" " ".....	4346	225 00
	W. A. Kellerman.....	" " ".....	4347	225 00
	C. N. Brown.....	" " ".....	4348	225 00
	A. C. Barrows.....	" " ".....	4349	225 00
	Edward Orton.....	" " ".....	4350	225 00
	E. A. Eggers.....	" " ".....	4351	225 00

STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
June 10	J. R. Smith.....	¹ / ₁₀ salary June inst., 1898.....	4352	\$225 00
	W. R. Lazenby	" " " ".....	4353	225 00
	S. C. Derby	" " " ".....	4354	225 00
	R. D. Bohannon.....	" " " ".....	4355	225 00
	W. T. Magruder	" " " ".....	4356	223 00
	J. P. Gordy.....	" " " ".....	4357	225 00
	W. H. Scott	" " " ".....	4358	225 00
	A. F. Thomas	" " " ".....	4359	225 00
	B. L. Bowen	" " " ".....	4360	225 00
	A. L. Williston	" " " ".....	4361	225 00
	C. P. Linhart.....	" " " ".....	4362	160 00
	N. W. Lord.....	" " " ".....	4363	200 00
	W. F. Hunter	" " " ".....	4364	250 00
	E. B. Kinkead.....	" " " ".....	4365	100 00
	A. W. Hodgman	" " " ".....	4366	100 00
	D. F. Pugh	" " " ".....	4367	70 00
13	E. O. Randall.....	" " " ".....	4368	65 00
	F. F. D. Albery.....	" " " ".....	4369	15 00
	J. H. Collins.....	" " " ".....	4370	10 00
	Jean Blackford	Salary for June, 1898.....	4371	50 00
	Oliver Davie.....	Collection birds of N. A.....	4372	100 00
	G. B. Kauffman.....	¹ / ₁₀ salary June inst., 1898.....	4373	200 00
	Wm. McPherson.....	" " " ".....	4374	200 00
	F. A. Ray.....	" " " ".....	4375	200 00
	Edw. Orton, Jr	" " " ".....	4376	180 00
	G. W. McCoard.....	" " " ".....	4377	160 00
	H. C. Lord	" " " ".....	4378	150 00
	E. A. Hitchcock	" " " ".....	4379	150 00
	W. D. Gibbs.....	" " " ".....	4380	140 00
	P. G. Bowman.....	" " " ".....	4381	140 00
	F. C. Caldwell.....	" " " ".....	4382	140 00
	D. S. White	" " " ".....	4383	140 00
	R. I. Fulton	" " " ".....	4384	120 00
	Olive Jones.....	" " " ".....	4385	120 00
	J. C. Boyd	" " " ".....	4386	110 00
	C. E. Sherman	" " " ".....	4387	100 00
	T. E. French.....	" " " ".....	4388	100 00
	C. W. Mesloh	" " " ".....	4389	100 00
	F. C. Clark	" " " ".....	4390	100 00
	W. H. Siebert.....	" " " ".....	4391	100 00
	J. R. Taylor.....	" " " ".....	4392	100 00
	J. A. Bownocker.....	" " " ".....	4393	90 00
	W. A. Knight.....	" " " ".....	4394	90 00
	C. W. Weick.....	" " " ".....	4395	90 00
	C. C. Sleffel	" " " ".....	4396	90 00
	C. W. Foulk	" " " ".....	4397	85 00
	K. D. Swartzel.....	" " " ".....	4398	85 00
	C. A. Dye.....	" " " ".....	4399	85 00
	J. S. Hine	" " " ".....	4400	85 00
	J. H. Schaffner.....	" " " ".....	4401	80 00
	C. Wissler.....	" " " ".....	4402	80 00
	C. A. Bruce	" " " ".....	4403	80 00
	F. Haas	" " " ".....	4404	70 00
	E. E. Harrold	" " " ".....	4405	70 00
	A. E. Vinson.....	" " " ".....	4406	65 00

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STATEMENT II—Continued.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
June 13	F. L. Landacre	$\frac{1}{10}$ sal. June inst., 1888.....	4407	\$65 00
	Stella Elliott	" " " "	4408	60 00
	Harriet Townshend	" " " "	4409	55 00
	F. C. Kester.....	" " " "	4410	55 00
	Maude Jeffrey.....	" " " "	4411	50 00
	Gertrude Kellicott.....	" " " "	4412	50 00
	Theo. Griffin	" " " "	4413	40 00
	J. R. Spurrier.....	" " " "	4414	35 00
	M. Dresback.....	" " " "	4415	30 00
	J. H. Fox.....	" " " "	4416	30 00
	C. T. Morris	" " " "	4417	30 00
	J. F. Cunningham	" " " "	4418	30 00
	Robt Fisher	" " " "	4419	20 00
14	C. B. Enlow	Sal. as Q. M., 3d term.....	4420	5 00
	A. V. Bleininger.....	$\frac{1}{10}$ sal. June inst., 1898	4421	20 00
	R. E. McIntosh.....	" " " "	4422	10 00
	W. E. Chappell	" " " "	4423	10 00
	H. Gamper	" " " "	4424	10 00
	K. Nurian.....	" " " "	4425	10 00
	E. E. Somermier	" " " "	4426	10 00
	J. H. Canfield.....	Salary for June, '98.....	4427	500 00
	Alexis Cope	" " " "	4428	187 50
	W. C. McCracken	" " " "	4429	125 00
	G. R. Rose	" " " "	4430	65 00
	W. R. Beattie.....	" " " "	4431	54 17
	Edith Cockins.....	" " " "	4432	54 17
	Chas. Low.....	" " " "	4433	54 17
	C. B. Hine.....	" " " "	4434	50 00
	A. Chantler.....	" " " "	4435	45 00
	Wm. Standley.....	" " " "	4436	45 00
	Benj Le Bay.....	" " " "	4437	45 00
	H. Martz.....	" " " "	4438	45 00
	Jas. Kelly.....	" " " "	4439	41 67
	I. H. Brown	" " " "	4440	40 00
	M. H. Cook.....	" " " "	4441	40 00
	J. M. Lain Smith.....	Exp. meetg. trustees May 25.....	4442	5 50
	W. I. Chamberlain.....	Exp. meetg. trustees, June 11-15.....	4443	24 45
	T. J. Godfrey	Exp. meetg. trustees, May 25 and June 13-15.....	4444	25 75
15	W. Whitestone.....	Salary for June, '98.....	4445	40 00
	D. D. Geren	" " " "	4446	40 00
	F. B. Brewer.....	" " " "	4447	40 00
	J. E. Adams	" " " "	4448	40 00
	J. Conrad.....	" " " "	4449	40 00
	Wash. Townsend	" " " "	4450	30 00
	W. Weir.....	" " " "	4451	20 00
	Void	" " " "	4452	
16	D. C. Huddleson.....	Work in gymnasium.....	4453	3 37
	Void	" " " "	4454	
	T. E. French.....	Lettering law certificates.....	4455	3 30
	Geo. Trowbridge	Carpenter work.....	4456	2 75
	F. S. Johnston.....	Typewriting.....	4457	2 40
	W. Whitestone.....	Horse hire	4458	8 00
	W. F. Worcester.....	5 window panes.....	4459	70

STATEMENT II—Concluded.

Date.	To whom paid.	For what purpose.	No.	Amount.
1898.				
June 16	C. L. Fullmer.....	Student assistance.....	4460	\$10 95
	Tallmadge Hdw. Co.....	1 pane glass.....	4461	2 00
	E. H. Bailey.....	Janitor.....	4462	3 68
16	Wm. McPherson.....	Stationery.....	4463	1 40
	Robt. Fischer.....	Extra serv. in chemistry.....	4464	5 00
	S. V. Peppel.....	Service in chemistry.....	4465	6 45
	Kelton & Converse.....	Lumber.....	4466	2 25
	E. M. Van Harlingen ..	Supplies department physio.....	4467	2 50
	The "Makio".....	Adv. in the "Makio".....	4468	60 00
	C. H. Woodruff.....	Carpenter work.....	4469	1 11
	Lucy Allen.....	Curator arch. museum.....	4470	20 00
17	Wm. Lawrence.....	Bac. address, honorarium.....	4471	50 00
18	C. W. Heatt.....	Honorarium com. address.....	4472	20 00
	H. Chantler.....	Salary for June, 1898.....	4473	40 00
	G. G. Leinbaugh.....	Repairing machinery.....	4474	12 90
	J. H. Lesh.....	114½ hours rep. machinery.....	4475	17 12
	W. H. Bradley.....	66 " ".....	4476	9 90
	A. L. Williston.....	Cash paid work in shops.....	4477	28 80
20	W. E. Lamb.....	Repair work in mch. shops.....	4478	11 32
21	J. T. Mack.....	Expense meeting June 12, 13, 14, 15.....	4479	26 44
	M. Zimmerman.....	Service as domestic.....	4480	4 00
22	Lily Weeks.....	Clerical work and janitrix.....	4481	2 00
	E. P. Hapgood.....	Work in blacksmith shop.....	4482	3 60
25	A. G. McCall.....	Salary for June, 1898.....	4483	20 00
26	F. W. Prentiss.....	" ".....	4484	33 34
28	Wm. Erdman.....	Work in shops.....	4485	17 58
30	G. G. Ball.....	Work in library.....	4486	21 67
	Total disbursements.....	462,175 79

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STATEMENT III.

LIST OF EMPLOYES AND COMPENSATION.

in compliance with section 7 of the *Organic Act*, passed by the Legislature of Ohio, May 1, 1878, (Bates Annotated Ohio Statutes, sec. 4105-41) which requires the list of "the number of professors, officers, teachers and other employes, and the compensation of each, to be annually reported," I submit the following:

Employees.	Position.	Salary.
James H. Canfield.....	President	\$6,000 00
W. H. Scott.....	Professor of Philosophy	2,250 00
Edward Orton	" geology	2,250 00
W. R. Lazenby.....	" horticulture and forestry	2,250 00
Josiah K. Smith.....	" Greek language & literature.....	2,250 00
Henry A. Weber	" agricultural chemistry	2,250 00
Benj. F. Thomas	" physics	2,250 00
Geo. W. Knight.....	" history and political science ..	2,250 00
R. Daniel Bohannon.....	" mathematics and astronomy.....	2,250 00
David S. Kellicott.....	" zoology and entomology.....	2,250 00
Ernst A. Eggers.....	" German language, literature.....	2,250 00
C. Newton Brown.....	" civil engineering	2,250 00
Albert M. Bieile.....	" anatomy and philosophy.....	2,250 00
Wm. A. Kellerman.....	" botany	2,250 00
Thos. F. Hunt.....	" agriculture	2,500 00
Samuel C. Derby.....	" Latin language, literature.....	2,250 00
Nathaniel W. Lord.....	" mining engineering	2,000 00
A. L. Williston.....	Director of industrial departments.....	2,250 00
Albert C. Barrows.....	Professor of English literature.....	2,250 00
Joseph V. Denney.....	" rhetoric and English language ..	2,250 00
Benj. L. Bowen.....	" Romance languages.....	2,250 00
W. F. Hunter	Dean of law faculty.....	2,250 00
Geo. B. Kauffman.....	Professor of pharmacy	2,000 00
John P. Gordy	" pedagogy	2,250 00
Robt. I. Fulton	" elocution and oratory.....	1,200 00
Wm. T. Magruder	" mechanical engineering	2,250 00
John T. Martin	" military science	400 00
Edward Orton, Jr.....	Director school of ceramics.....	1,800 00
Frank A. Ray.....	Associate professor mining engineering.....	2,000 00
Jos. N. Bradford.....	Associate professor drawing	1,800 00
Wm. McPherson	Associate professor general chemistry.....	2,000 00
Geo. W. McCoard	Assistant professor mathematics	1,600 00
Sidney A. Norton	Lecturer in general chemistry	1,200 00
F. C. Caldwell.....	Associate professor physics	1,400 00
Henry C. Lord.....	Director observatory	1,500 00
C. E. Sherman.....	Assistant professor civil engineering.....	1,000 00
E. A. Hitchcock.....	Associate professor mech'l engineering.....	1,500 00
W. D. Gibbs	Assistant " agriculture.....	1,400 00
C. W. Mestoh	" " German.....	1,000 00
David S. White	Associate " veterinary medicine	1,400 00
Thos. E. French	Assistant in drawing.....	1,000 00
F. C. Clark	" professor of economics.....	1,000 00
Olive B. Jones.....	Librarian	1,200 00
Chas. W. Weick.....	Foreman carpenter shop.....	900 00
William A. Knight.....	" machine shops	900 00
C. C. Sleffel.....	" forge room	900 00
J. E. Boyd.....	Assistant professor physics.....	1,100 00
Karl D. Swartzel	" mathematics	850 00
W. L. Graves.....	" rhetoric.....	800 00
Jas. S. Hine.....	" entomology	850 00
A. E. Vinson.....	" agricultural chemistry.....	650 00
E. M. Van Harlingen.....	" anatomy and physiology	600 00

LIST OF EMPLOYES AND COMPENSATION—Continued.

Employees.	Position.	Salary.
H. J. Noyes	Assistant professor dairy husbandry.....	\$666 64
Frank Haas.....	Assistant in metallurgy and mineralogy.....	700 00
Arthur W. Hodgman.....	Assistant professor Greek and Latin.....	1,000 00
Chas W. Burkett.....	Assistant in agriculture	750 00
C. B. Hine	" horticulture.....	600 00
J. A. Bownocker.....	" geology.....	900 00
W. H. Siebert.....	Assistant professor history.....	1,000 00
C. L. Arnold.....	Assistant in mathematics	850 00
C. A. Dye.....	Assistant professor pharmacy.....	850 00
W. F. Lavery	Assistant in veterinary medicine.....	700 00
E. H. Harold.....	Storekeeper	700 00
C. B. Fredericks	Fellow in veterinary medicine.....	250 00
J. G. Boyd	Fellow in veterinary medicine	250 00
Thos. K. Lewis.....	Assistant in drawing.....	600 00
C. A. Bruce	" French.....	800 00
F. L. Landacre.....	" zoology.....	650 00
Theo. Griffin	" ceramics	400 00
C. W. Foulk.....	" general chemistry	850 00
Harriet Townshend	" library.....	550 00
F. E. Kester.....	" physics.....	550 00
J. H. Schaffner.....	" botany	800 00
Horace Judd.....	Fellow in mechanical engineering.....	300 00
J. R. Spurrier.....	Fellow and laboratory assistant in electrical engineering.....	350 00
Robert Fischer	Student assistant in chemistry.....	200 00
Edward T. Watson.....	" " ".....	200 00
Maud Jeffreys.....	Assistant in library.....	500 00
Gertrude Kellicott	" "	500 00
W. R. Beattie	Florist.....	650 00
C. P. Linhart.....	Director physical training	1,600 00
Perla G. Bowman	Assistant professor domestic science	1,400 00
J. R. Taylor.....	Assistant professor rhetoric.....	1,000 00
Clark Wissler.....	Assistant in philosophy and pedagogy.....	800 00
Stella Elliott.....	Gymnasium assistant.....	600 00
M. Dresbach	Fellow in anatomy and physiology	300 00
H. W. Kuhn.....	" mathematics.....	300 00
J. H. Fox	" industrial arts	300 00
J. F. Cunningham.....	" horticulture and forestry.....	300 00
E. E. Sommermeier.....	Student assistant in chemistry.....	100 00
W. H. Page	Professor of law.....	1,350 00
E. B. Kinkad.....	"	1,000 00
D. F. Pugh	"	700 00
E. O. Randall.....	"	650 00
G. W. Knight	"	250 00
F. F. D. Alberry.....	Lecturer on law	150 00
J. H. Collins	"	100 00
John A. Shauck	"	100 00
Alexis Cope.....	Secretary.....	2,250 00
F. W. Prentiss	Treasurer	400 00
W. C. McCracken	Chief engineer.....	1,500 00
Chas. Low.....	Assistant engineer.....	650 00
Geo. R. Rose.....	Plumber	780 00
H. Martz	Watchman	540 00
William Whitestine	Janitor	480 00
James Kelley	Lawnkeeper	500 00
Jean Blackford.....	Executive clerk.....	600 00
Edith D. Cockins	Record clerk	650 00
Wm. Standley.....	Fireman.....	540 00

LIST OF EMPLOYES AND COMPENSATION—Concluded.

Employees.	Position.	Salary.
Benj. LeBay.....	Fireman	\$540 00
F. B. Brewer.....	Janitor.....	480 00
Wash Townsel	"	360 00
John E. Adams.....	"	480 00
John Conrad.....	"	480 00
Edward Stalter	"	200 00
Arthur Chantler	"	540 00
J. H. Brown.....	"	480 00
M. N. Cook	"	480 00
D. D. Geren	"	480 00
Jay A. Thompson	"	135 00
Mary Howells Cope	Clerk in office of Board of Trustees.....	600 00
C. Riddle.....	Janitor.....	200 00
R. E. McIntosh	"	100 00
W. E. Chappell	"	100 00
H. Gamper .....	.....	100 00
K. Nurian .....	.....	100 00
Wm. Weir	Elevator attendant.....	200 00

COLUMBUS, OHIO, September 21, 1898.

To the Board of Trustees of the Ohio State University:

The undersigned, the Finance Committee, have, in obedience to your instructions, examined the accounts and vouchers of F. W. Prentiss, the Treasurer of the University, for the period from July 1, 1897, to June 30, 1898, and carefully compared them with the vouchers in possession of the Secretary, and hereby certify that the report of the Treasurer submitted to the Board for the period named, which is the last fiscal year, is correct.

D. M. MASSIE,
J. McLAIN SMITH,
T. J. GODFREY,
Finance Committee.

Report of Treasurer of the Ohio State University to the Secretary of Agriculture and the Secretary of the Interior, of amount received under act of Congress of August 30, 1890, in aid of Colleges of Agriculture and the Mechanic Arts, and of the disbursements thereof, to and including June 30, 1898.

Balance on hand July 1, 1897.....	\$853 94
Date of receipt of installment for 1897-'98, July 19, 1897.....Amount...	23,000 00
Total available for year ending June 30, 1898.....	\$23,853 94
Disbursements thereof for and during the year ending June 30, 1898:	
Agriculture, as per Schedule A.....	7,622 03
Mechanic Arts, as per Schedule B.....	6,828 23
English Language as per Schedule C.....	693 40
Mathematical Science, as per Schedule D	847 76
Natural or Physical Science, as per Schedule E.....	7,148 50
Economic Science, as per Schedule F.....	446 60
Total expended during year.....	\$23,586 52
Balance remaining unexpended July 1, 1898.....	267 42

I hereby certify that the above account is correct and true, and, together with the schedules hereunto attached, truly represents the details of expenditures for the period and by the institution named, and that said expenditures were applied only to instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural, and economic science, with special reference to their application in the industries of life and to the facilities for such instruction.

F. W. PRENTISS,
Treasurer.

SCHEDULE A.

Disbursements for instruction in Agriculture and for facilities for such instruction, during the year ended June 30, 1898.

Names of instructors.	Subjects taught for which paid from "Morrill Fund."	Amount.
I. For salaries of instructors:		
Thos. F. Hunt, Professor.....	Agriculture	\$250 00
W. D. Gibbs, Asst. Prof.....	"	140 00
C. W. Burkett, Assistant.....	"	75 00
H. I. Noyes, Asst. Prof.....	Dairy husbandry	166 66
H. A. Weber, Professor	Agricultural chemistry	225 00
A. E. Vinson, Assistant....	"	65 00
W. R. Lazenby, Professor.....	Horticulture	225 00
C. B. Hine, Assistant	"	50 00
John F. Cunningham, Fellow.....	"	30 00
D. S. White, Asst. Prof.....	Veterinary medicine.....	140 00
W. F. Lavery, Assistant.....	"	70 00
J. G. Boyd, Fellow.....	"	25 00
C. B. Fredericks, Fellow	"	25 00

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SCHEDULE A—Concluded.

	Amount.
II. For facilities as follows:	
Department of Agriculture.	
Repairs to machinery, \$52.93; skeleton, \$5.00; drugs and medicine, \$2.74; fertilizers, \$36.38; hardware and tools, \$73.85; blacksmith, \$108.85; harness, \$45.70; machinery, \$695.51; grinding corn, \$6.00; instruments, \$10.10; machine parts, \$18.26; threshing, \$31.55; boxes, \$1.00; cows and pigs, \$358.37; feed, \$11.30; seeds, \$7.76; gluten meal, \$28.99; score cards, \$11.25; scales, \$215.34; equipment soil physics laboratory, Townshend Hall, \$191.32; plumbing, equipment agricultural chemistry and dairy laboratories, \$1,402.22; tank and gas, \$6.25; wagon, \$56.11; laboratory apparatus, \$114.10; laboratory lantern and screen, \$38.77; grain testers, \$61.15; aerometers, \$16.80; equipment soil physics laboratory, \$121.25; steel share, \$3.80.....	\$3,730 65
Dairy School.	
Milk can and bottles, \$11.98; milk, \$341.02; engine, \$250.00; machinery, \$102.52; ice machine, \$1,073.46.....	1,778 98
Department of Horticulture.	
Manure.....	60 00
Agricultural Chemistry.	
Chemicals.....	395 09
Department of Veterinary Medicine.	
Mattress, \$5.95; halters, etc., \$3.25; surgical instruments, \$37.00; harness, \$4.50; feed, etc., \$36.90; mounting skeleton, \$20.00; antitoxine, \$23.05; hobbles, \$40.00.....	170 65
Total	\$7,622 03

SCHEDULE B.

Disbursements for instruction in Mechanic Arts and for facilities for such instruction, during the year ended June 30, 1898.

Names of instructors:	Subjects taught for which paid from "Morrill Fund."	Amount.
I. For salaries of instructors:		
Edw. Orton, Jr., Professor	Ceramics	\$180 00
Theo. L. Griffin, Assistant.....	"	40 00
C. N. Brown, Professor.....	Civil Engineering	225 00
C. E. Sherman, Assistant.....	"	100 00
J. N. Bradford, Associate Prof....	Drawing	180 00
T. E. French, Assistant.....	"	100 00
T. K. Lewis, Assistant.....	"	60 00
F. C. Caldwell, Assistant Prof. ..	Electrical Engineering.....	140 00
J. R. Spurrier, Assistant.....	"	35 00
A. L. Williston, Professor.....	Industrial Arts	225 00
W. A. Knight, Forem'n Mch. Shp.	" "	90 00
C. W. Weick, " Carp. "	" "	90 00
Chas. Sleffel, Foreman.....	" "	90 00
J. H. Fox, Fellow.....	" "	30 00
W. T. Magruder, Professor.....	Mechanical Engineering	225 00
E. A. Hitchcock, Assistant Prof ..	" "	150 00
Horace Judd, Fellow.....	" "	30 00
N. W. Lord, Professor.....	Mining and Metallurgy.....	200 00
Frank Haas, Assistant	" "	70 00
Frank A. Ray, Assistant Prof	Mine Engineering.....	200 00
G. B. Kauffman, Professor.....	Pharmacy	200 00
C. A. Dye, Assistant	"	85 00

SCHEDULE B—Continued.

	Amount.
II. For facilities, as follows :	
Text-books and reference books.....	\$58 98
Department of Industrial Arts.	
Repairs, machinery, \$27.88; mach. parts, \$7.20; wire benders, \$1.70; pig copper, \$3.90; hardware, \$47.33; brass cast., \$1.55; grinding tools, \$2.75; B. P. paper, \$1.00; lumber, \$346.72; tools, \$272.11; grind. machine, \$25.00; shafting, \$43.44; saw and blades, \$18.75; shellers, \$7.70; iron, \$111.96; steel and brass, \$17.56.....	936 55
Department of Civil Engineering.	
Hardware, \$3.04; Dr. tables, \$8.50; cur. meter, \$144.50; cent. timer, \$6.00; B. P. frame, etc., \$39.00; bat. zinc, \$19.15; repair instrument, \$11.12; tools and instruments, \$199.11.....	430 42
Department of Mechanical Engineering.	
Pipe and fittings, \$188.24; hardware, \$65.76; lumber, \$50.88; rep'r machine, \$9.00; instruments, \$81.33; shafting, etc., \$24.55; galvanometer, \$30.50; apparatus, \$20.50; standpipe, \$60.00; cistern, \$74.50; indicators, \$51.31; fitting lab. machine, \$98.21; Rem. heater, \$5.00; steam trap, \$21.00; steel box, \$8.75; valves, \$35.79; Red. wheel, \$16.50; freight on machinery, \$86.98; steel points, \$5.00; pulleys and belts, \$36.88; timer, \$4.00; gauges, \$67.78; iron, \$3.60; slate, \$2.00; gas engine indicator, \$77.65; meter, \$15.00; counters, \$90.73.....	1,231 44
Department of Ceramics.	
G. I. Cans, \$21.13; specimen boxes, \$1.70; labor on kiln, \$48.54; instruments, etc., \$117.55; coke, \$11.00; flanges, etc., \$24.85; gaskets, \$4.30; gasoline, \$24.51; feldspar, \$25.00; flint, \$20.47.....	299 55
Department of Drawing and Photography.	
Photo. supplies, \$191.06; charts, \$12.00; plate holders, \$30.00; electric lamp, \$11.25.....	244 31
Department of Electrical Engineering.	
Des'g spring, \$2.09; work on app., \$2.62; voltmeter, \$179.76; jars, \$7.85; platinum wire, \$108.87; balances, \$84.00; wire braid, \$6.27; cells, \$29.35; instruments, \$121.88; pulleys, belting, etc., \$10.63; T. H. receiver, \$3.50.....	556 82
School of Mines.	
Time cards, \$3.60; switches, \$26.55; silver protractor, \$9.00; castings, \$3.25; steel tape, \$15.00; chem. supplies, \$267.76.....	325 16
Total	\$6,828 23

SCHEDULE C.

Disbursements for instruction in English Language and for facilities for such instruction, during the year ended June 30, 1898.

Name of instructors.	Subjects taught for which paid from "Morrill Fund."	Amount.
I. For salaries of instructors :		
A. C. Barrows, Professor	English Literature	\$225 00
Jos. V. Denney, "	English Language & Rhetoric..	225 00
J. R. Taylor, Assistant	" " ..	100 00
W. R. Graves, "	" " ..	80 00

SCHEDULE C—Continued.

	Amount.
II. For facilities, as follows :	
Text-books and reference books.....	\$63 40
Total	\$693 40

ANNUAL REPORT

SCHEDULE D.

Disbursements for instruction in Mathematical Science and for facilities for such instruction, during the year ended June 30, 1898.

Names of instructors.	Subjects taught for which paid from "Morrill Fund."	Amount.
I. For salaries of instructors:		
R. D. Bohannon, Professor.....	Mathematics	\$225 00
G. W. McCoard, Asst. Prof.....	"	160 00
C. L. Arnold, Assistant.....	"	85 00
K. D. Swartzel, Assistant	"	85 00
H. W. Kuhn, Fellow.....	"	30 00
H. C. Lord, Director Observatory	" and astronomy	150 00

SCHEDULE D—Continued.

	Amount.
II. For facilities, as follows:	
Text books and reference books.....	\$37 25
Battery zinc, \$8.44; elec. apparatus, \$30.50; apparatus, \$30.50; photo plates, \$6.07	75 51
Total.....	\$847 76

SCHEDULE E.

Disbursements for instruction in Natural or Physical Science and for facilities for such instruction, during the year ended June 30, 1898.

Names of instructors.	Subjects taught for which paid from "Morrill Fund."	Amount.
I. For salaries of instructors:		
A. M. Bleile, Professor.....	Anatomy and physiology.. ..	\$225 00
E. M. Van Harlingen, Assistant..	"	60 00
M. Dresbach, Fellow.....	"	30 00
W. A. Kellerman, Professor.....	Botany	225 00
J. H. Shaffner, Assistant	"	80 00
W. R. Beattie, Florist.....	"	50 00
Wm. McPherson, Asso. Prof	Chemistry.....	200 00
S. A. Norton, Lecturer.....	"	120 00
C. W. Foulk, Assistant.....	"	85 00
Robert Fisher, Fellow	"	20 00
F. O. Clements, Fellow.....	"	20 00
Edw. Orton, Professor.....	Geology.....	225 00
J. A. Bownocker, Assistant.....	"	90 00
B. F. Thomas, Professor	Physics	225 00
J. E. Boyd, Assistant.....	"	110 00
F. E. Kester, Assistant.....	"	50 00
D. S. Kellicott, Professor.....	Zoology and entomology.....	225 00
J. S. Hine, Assistant.....	"	85 00
F. L. Landacre, Assistant	"	65 00

SCHEDULE E—Continued.

	Amount.
II. For facilities as follows :	
Text-books and reference books.....	\$23 65
Department of Anatomy and Physiology.	
Microscopes, \$251.31; instruments, \$2.60; objectives, \$7.20	261 11
Department of Botany.	
Microscopes, \$407.48; work on herb. and coll., \$109.83; tools, etc., \$5.71; hardware, etc., \$26.71.....	549 73
Department of Geology.	
Specimens, \$123.22; work on coll., \$100.00; labels, \$14.50.....	237 72
Department of Physics.	
Induction coil, \$142.15; instruments, \$137.29; belting, \$5.00; dynamo, \$45.00.....	329 44
Department of Chemistry.	
Labor, \$21.60; dist. water app., \$151.30; chemical supplies and app. \$2,993.76; balances, \$102.10; instruments, \$30.60; plat. crucible, \$64.03	3,363 39
Department of Zoology.	
Specimens, \$20.50; diss. boxes, \$3 65; objectives, \$97.95; bottles and cans, \$51.38; labels, \$9.30; material for diss. \$10.68.....	193 46
Total.....	\$7,148 50

SCHEDULE F.

Names of instructors.	Subjects taught for which paid from "Morrill Fund."	Amount.
I. For salaries of instructors:		
Geo. W. Knight, Professor.....	History and Political Science ...	\$225 00
F. C. Clark, Asst. Professor.....	Economics and Sociology.....	100 00
W. H. Siebert, Asst. Professor ...	History and Political Science.....	100 00

SCHEDULE F—Continued.

		Amount.
II. For facilities as follows:		
Text-books and reference books.....		\$21 60
Total		\$446 60

OHIO STATE UNIVERSITY.

TWENTY-EIGHTH ANNUAL REPORT

OF THE

BOARD OF TRUSTEES

TO THE

GOVERNOR OF OHIO

FOR THE

Year Ending June 30, 1898.

PART II.

The State has no material resources at all comparable with its citizens,
and no hope of perpetuity except in the intelligence
and integrity of its people.

COLUMBUS.
PUBLISHED BY THE UNIVERSITY.
JANUARY, 1899.

Entered at the Postoffice at Columbus, Ohio, as Second-Class Matter.

CALENDAR

1898

JULY							AUGUST							SEPTEMBER							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
					1	2		1	2	3	4	5	6						1	2	3
3	4	5	6	7	8	9	7	8	9	10	11	12	13	4	5	6	7	8	9	10	
10	11	12	13	14	15	16	14	15	16	17	18	19	20	11	12	13	14	15	16	17	
17	18	19	20	21	22	23	21	22	23	24	25	26	27	18	19	20	21	22	23	24	
²⁴ ₃₁	25	26	27	28	29	30	28	29	30	31	....	....	....	25	26	27	28	29	30	....
OCTOBER							NOVEMBER							DECEMBER							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
						1			1	2	3	4	5						1	2	3
2	3	4	5	6	7	8	6	7	8	9	10	11	12	4	5	6	7	8	9	10	
9	10	11	12	13	14	15	13	14	15	16	17	18	19	11	12	13	14	15	16	17	
16	17	18	19	20	21	22	20	21	22	23	24	25	26	18	19	20	21	22	23	24	
²³ ₃₀	²⁴ ₃₁	25	26	27	28	29	27	28	29	30	....	....	....	25	26	27	28	29	30	31

1899

JANUARY							FEBRUARY							MARCH							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
1	2	3	4	5	6	7					1	2	3	4				1	2	3	4
8	9	10	11	12	13	14	5	6	7	8	9	10	11	5	6	7	8	9	10	11	
15	16	17	18	19	20	21	12	13	14	15	16	17	18	12	13	14	15	16	17	18	
22	23	24	25	26	27	28	19	20	21	22	23	24	25	19	20	21	22	23	24	25	
29	30	31	.....	.....	.....	.....	26	27	28	.....	.....	.....	.....	26	27	28	29	30	31	.....
APRIL							MAY							JUNE							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
						1			1	2	3	4	5	6					1	2	3
2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10	
9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17	
16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24	
23 30	24	25	26	27	28	29	28	29	30	31	.....	.....	.....	25	26	27	28	29	30	.....

Days and Dates

1898

Thanksgiving Recess.....	} Thursday, Friday,	November 24.
First term ends.....		November 25.
Christmas Vacation.	Wednesday,	December 21.

1899

Second Term begins	Wednesday,	January 4.
First Semester (College of Arts, Philosophy and Science) ends.....	Friday,	February 3.
Second Semester (College of Arts, Philosophy and Science) begins.....	Monday,	February 6.
University Day	Wednesday,	February 22.
Second Term ends.....	Friday,	March 24.
Third Term begins.....	Monday,	March 27.
Spring Recess.		
Meeting of Trustees	Wednesday,	April 5.
High School Day.....	Friday,	May 19.
Senior Vacation begins.....	Saturday,	May 20.
Field Day—Atheletic Association.....	Saturday,	May 20.
Memorial Day	Tuesday,	May 30.
Competitive Drill, Cadet Battalion.....	Saturday,	June 3.
Final Examinations (all Colleges).....	} Monday to Friday,	June 5.
Baccalaureate Sermon		June 9.
Entrance Examinations (8 A. M.).....	Sunday,	June 11.
Class day.....	} Monday, Tuesday,	June 12.
Meeting of Trustees		June 13.
Alumni Day	Monday,	June 12.
COMMENCEMENT.....	Tuesday,	June 13.
Summer Vacation.	Tuesday,	June 13.
Entrance examination (8 A. M.)	} Monday, Tuesday,	June 14.
Registration		Wednesday, September 11.
Lectures and Class-work begin (all Colleges).....	Thursday,	September 12.
Meeting of Trustees.....	Wednesday,	September 13.
	Thursday,	September 14.
	Wednesday,	September 27.

Board of Trustees

1898-1899

		Term Expires
WM. I. CHAMBERLAIN.....	Hudson.....	May 13, 1899
DAVID M. MASSIE.....	Chillicothe.....	" 1900.
JOHN T. MACK.....	Sandusky.....	" 1901.
LUCIUS B. WING.....	Newark.	" 1902.
THOMAS J. GODFREY	Celina	" 1903.
J. McLAIN SMITH	Dayton	" 1904.
PAUL JONES	Columbus.....	" 1905.

Officers of the Board

WM. I. CHAMBERLAIN.....	President.
J. McLAIN SMITH	Vice President.
ALEXIS COPE	Secretary.
FRED W. PRENTISS.....	Treasurer.

Committees of the Board

EXECUTIVE	FARM	FINANCE
L. B. WING	J. McLAIN SMITH	D. M. MASSIE
T. J. GODFREY	L. B. WING	T. J. GODFREY
PAUL JONES	JOHN T. MACK	J. McLAIN SMITH
FACULTY AND COURSES OF STUDY		
THOMAS J. GODFREY	WM. I. CHAMBERLAIN	JOHN T. MACK

THE FACULTIES

Members of the Faculties, and Other Instructors

1897-1898

JAMES HULME CANFIELD.....University Ground

President

A. B., Williams, 1868; A. M., Williams, 1877; LL. D., Williams, 1893. Railroad construction, 1868-1872; Practicing Attorney, 1872-'77; Superintendent of Schools, St. Joseph, Michigan, 1874-'77; Professor of History and English Literature, State University of Kansas, 1877-'84; Professor of History and Political Science, State University of Kansas, 1884-'87; Professor of American History and Civics, State University of Kansas, 1887-'91; Chancellor of the University of Nebraska, 1891-'95; present position since 1895.

EDWARD ORTON.....100 Twentieth street

Professor of Geology, and State Geologist

A. B., Hamilton, 1848; Ph. D., Hamilton, 1875; LL. D., Ohio State University, 1881. Student of Theology, Lane Seminary, 1849; Student at Lawrence Scientific School, Harvard University, 1852; Student, Andover, 1854; Professor of Natural Science, State Normal School, Albany, N. Y., 1856-'59; Principal, Chester Academy, N. Y., 1859-'65; Professor of Natural History, Antioch, 1865-'72; President of Antioch, 1872-'73; President of the Ohio State University, 1873-'81; State Geologist, 1869; present position since 1881.

WILLIAM HENRY SCOTT.....131 Fifteenth avenue

Professor of Philosophy

A. B., Ohio University, 1862; M. A., Ohio University, 1865; LL. D., Ohio University and Ohio Wesleyan, 1884. Superintendent of Public Schools, Athens, Ohio, 1862-'64; Principal of the Preparatory Department of the Ohio University, 1864-'65; Pastor of Main Street M. E. Church, Chillicothe, Ohio, 1865-'67; Pastor of Town Street M. E. Church, Columbus, Ohio, 1867-'69; Professor of Greek, Ohio University, 1869-'72; President and Professor of Philosophy, Ohio University, 1872-'83; President and Professor of Philosophy, Ohio State University, 1883-'95; present position since 1895.

SIDNEY AUGUSTUS NORTON.....363 East Town street

Lecturer in Chemistry

A. B., Union, 1856; A. M., Union, 1859; M. D., Miami Medical College, 1867; Ph. D., Kenyon 1878; LL. D., Wooster, 1881. Student at Bonn, Leipsic, Heidelberg; Teacher, Poughkeepsie Collegiate Academy, 1856; Tutor, Union, 1857; Principal Hamilton (Ohio) High School, 1858; Instructor of Natural Science, Cleveland High Schools, 1859-'66; Teacher of Natural Science, Mt. Auburn, 1866-'72; Professor of Chemistry, Miami, 1867-'72; Acting Professor of Physics, Union, 1872-'73; Professor of Chemistry, Ohio State University, 1873-'95; present position since 1895.

NATHANIEL WRIGHT LORD.....338 West Eighth avenue

Professor of Mineralogy and Metallurgy, Director of the School of Mines, and Dean of the College of Engineering

E. M., Columbia. 1876. Present position since 1878.

SAMUEL CARROLL DERBY.....93 Fifteenth avenue

Professor of Latin, and Dean of the College of Arts, Philosophy and Science

A. B., Harvard, 1866; A. M., Harvard, 1869 (in course), 1877 (by examination). Principal of Schools, Ilion, N. Y., 1866-'67; Assistant in Dixwell's Classical School, Boston, 1867-'70; Professor of Language, Antioch, 1870-'81; President, Antioch, 1877-'81; Student, Latin and History, Harvard, 1876-'77; Student, Latin and History, John Hopkins, 1880-'81; Student, Latin, Harvard, 1892-'93; present position since 1881.

WILLIAM RANE LAZENBY.....307 West Sixth avenue

Professor of Horticulture and Forestry

B. Agr., Cornell, 1874; M. Agr., Iowa Agricultural College, 1887. Instructor Horticulture and Botany, Cornell, 1874-'77; Assistant Professor of Horticulture, Cornell, 1877-'81; Lecturer, N. Y. State Grange, 1874-'81; Director Ohio U. S. Experiment Station, 1882-'84; Professor of Botany and Horticulture, Ohio State University, 1881-'92; present position since 1892.

JOSIAH RENICK SMITH.....950 Madison avenue

Professor of the Greek Language and Literature

A. B., Amherst, 1871; A. M., Amherst, 1883. Principal, Mound Street School, Columbus, 1871-'73; Teacher, Columbus High School, 1873-'1876; Assistant Professor of Ancient Languages, Ohio State University, 1876-'81; Student at Leipsic, 1881-'83; present position since 1883.

HENRY ADAM WEBER.....1342 Forsythe avenue

Professor of Agricultural Chemistry

Graduate of Polytechnic School, Kaiserslautern, 1866; Student, Chemistry under Von Leibig and Reischner, and of Mineralogy under Von Kobell, Munich, 1866-'68; Ph. D., Ohio State University, 1879. Ohio Geological Survey, Chemical Department, 1869-'74; Professor of General Chemistry and Mineralogy, Illinois State University, 1874-'82; present position since 1884.

BENJAMIN FRANKLIN THOMAS.....University Grounds

Professor of Physics, and State Sealer of Weights and Measures

B. Sc., Ripon, 1874; M. Sc., Ripon, 1877; Ph. D., Stevens Institute, 1880. Instructor in Mathematics and Physics, Carleton College, Northfield, Minnesota, 1876-'79; Professor of Physics, University of Missouri, 1880-'85; engaged in electrical test work at the International Electrical Exhibition at Philadelphia, 1884, and at the World's Columbian Exhibition, Chicago, 1893; present position since 1885.

GEORGE WELLS KNIGHT.....University Grounds

Professor of History and Political Science and of Constitutional and Private International Law

A. B., University of Michigan, 1878; A. M., University of Michigan, 1883; Ph. D., University of Michigan, 1884. Student, Law, University of Michigan, 1878-'79; Principal of High School, Lansing, Michigan, 1879-'81; Student, History and Political Science, University of Michigan, 1882-'84; Instructor in History, Ann Arbor High School, 1883-'85; Professor of History and English Literature, Ohio State University, 1885-'87; Student at Universities of Halle, Berlin, and Freiburg, 1889-'90; present position since 1887.

ROSSER DANIEL BOHANNAN.....Sixteenth and Indianola avenues

Professor of Mathematics

B. Sc., C. E., E. M., University of Virginia, 1876. Student of Mathematics and Physics, Cambridge, England, 1880-'82; Gottingen, 1882-'83; Teacher of Mathematics and Latin, Suffolk College Institute, Virginia, 1876-'77; Teacher of Mathematics and English, New York Latin School, New York City, 1877-'78; Professor of Mathematics and Natural Science, Emory and Henry College, 1878-'80; Acting Professor of Mathematics, University of Virginia, 1883-'84; Assistant Professor in Mathematics and Physics, University of Virginia, 1884-'87; Professor of Mathematics and Astronomy, Ohio State University, 1887-'95; present position since 1895.

*DAVID SIMONS KELLICOTT.....1332 Highland street

Professor of Zoology and Entomology

B. Sc., University of Syracuse, 1869; Ph. B., Syracuse 1874; Ph. D., Syracuse, 1881. Teacher of Mathematics, Keystone State Normal School, 1870-'71; Teacher of Natural Sciences, Buffalo State Normal School, 1873-'88; Teacher of Botany, College of Pharmacy, Buffalo, 1886-'88; Professor of Zoology and Comparative Anatomy, Ohio State University, 1888-'91; present position since 1891.

C. NEWTON BROWN.....1343 Forsythe avenue

Professor of Civil Engineering

C. E., Miami, 1886. Resident Engineer of the Ironton Extension of the Pittsburgh, Cincinnati, Chicago & St. Louis R. R., 1881; Ohio Geological Survey, 1882; Assistant in Mathematics and Civil Engineering, Ohio State University, 1883-'1885; Associate Professor of Civil Engineering, Ohio State University, 1885-'90; present position since 1890.

ERNST AUGUST EGGERS.....University Grounds

Professor of Germanic Languages and Literatures

Student in Gymnasium at Hanover, the Sorbonne, College de France; at Michigan State Normal School. Instructor in German in the High Schools of Wisconsin and Michigan for ten years; Assistant in German, Ohio State University, 1886-'88; Assistant Professor of German, same institution, 1888-'90; present position since 1890.

ALBERT MARTIN BLEILE.....218 King avenue

Professor of Anatomy and Physiology

M. D., Starling Medical College, 1876. Student, Vienna, Chemistry and Physiology, 1876-'77; Student, Physiology, Leipzig, 1877-'78; Student Anatomy and Histology, Paris, 1878-'79; Lecturer on Experimental Physiology, Starling Medical College, 1879; Professor of Physiology, Starling Medical College, 1884; present position since 1891.

WILLIAM ASHBROOK KELLERMAN.....175 Eleventh avenue

Professor of Botany

B. Sc., Cornell, 1874; Ph. D., Zurich, 1881. Professor of Natural Science, Wisconsin State Normal School, 1874-'79; Professor of Botany and Horticulture, Kentucky State College, 1881-'82; Professor of Botany and Zoology, Kansas State Agricultural College, 1883-'87; Professor of Botany, Kansas State Agricultural College, 1888-'91; Botanist, Kansas State Board of Agriculture, 1883-'91; Founder and first Editor of *Journal of Mycology*; present position since 1891.

THOMAS FORSYTH HUNT.....188 West Tenth avenue

Professor of Agriculture, and Dean of the College of Agriculture and Domestic Science

B. Sc., University of Illinois, 1884; M. Sc., University of Illinois, 1892. Assistant to Illinois State Entomologist, 1885-'86; Assistant in Agriculture, University of Illinois, 1886-'88; Assistant Agriculturalist, Illinois Experiment Station, 1888-'91; Professor of Agriculture, Pennsylvania State College, 1891-'92; present position since 1892.

*ARTHUR LYMAN WILLISTON.....652 Franklin avenue

Director of the Department of Industrial Arts

S. B., Massachusetts Institute of Technology, 1889. Railroad Engineering, two years; Instructor in Thermodynamics and Steam Engineering, Massachusetts Institute of Technology, 1891-'92; present position since 1893.

GEORGE BEECHER KAUFFMANUniversity Grounds

Professor of Pharmacy, and Dean of the College of Pharmacy

B. Sc., Ohio Wesleyan University, 1877; Pharm. D., Scio., 1894. Associate Professor of Pharmacy, Ohio State University, to 1894. Present position since 1894.

BENJAMIN LESTER BOWEN.....46 Jefferson avenue

Professor of Romance Languages and Literatures

A. B., University of Rochester, 1881; Ph. D., Johns Hopkins University, 1888. Professor of Languages, New Windsor College, Maryland, 1882-'83; Graduate Student and Assistant in French Johns Hopkins University, 1884-'86, and 1887-'88; Student at the Universities of Paris, Bonn, Rome and Madrid, 1885-'86 and 1886-'87; Professor of French and Latin, Bowdoin College, 1888-'89; Acting Associate Professor of French Language and Literature, Ohio State University, 1889-'90; Associate Professor of Romance Languages and Literatures Ohio State University, 1890-'94; present position since 1894.

JOSEPH VILLIERS DENNY.....The Dennison

Professor of Rhetoric and the English Language, and Secretary of the University Faculty

A. B. University of Michigan, 1885. Journalist, 1885-'88; Principal of the Aurora (Illinois) High School, 1888-'90; Instructor in English and Graduate Student, University of Michigan, 1890-'91; Associate Professor of Rhetoric, Ohio State University, 1891-'94; present position since 1894.

ALLEN CAMPBELL BARROWS15th and Indianola avenues

Professor of English Literature

A. B. Western Reserve, 1861; A. M., Western Reserve, 1866; D. D., Iowa College, 1889. Teacher, Latin and Greek, Phillips Academy, 1865-'66; Professor of Physics, Western Reserve, 1866-'70; Professor of Latin and English Literature, Western Reserve, 1870-'71; Professor of English Literature and History, Iowa Agricultural College, 1887-'91; present position since 1894.

* Resigned.

EDWARD ORTON, JR.....The Normandie

Director of the Department of Clay-Working and Ceramics

E. M., Ohio State University, 1884. Assistant to Ohio Geological Survey, 1882; Chemist for Columbus and Hooking Coal and Iron Company, 1885-'86; Superintendent of Bessie Furnace, 1887-'88; Chemist, Iron Works, Homestead, Pennsylvania, 1891; present position since 1894.

JOHN THOMAS MARTIN.....1194 Fair avenue

Professor of Military Science and Tactics

Graduated from West Point, with rank of Second Lieutenant, U. S. Artillery, 1889. Promoted to Rank of First Lieutenant, 5th Artillery, U. S. A., 1896. Appointed to present position, Commandant of University Battalion, September, 1895.

ROBERT IRVING FULTON.....Delaware, Ohio

Professor of Elocution and Oratory

A. M., Ohio Wesleyan University, 1887. Law Student, University of Virginia, 1877; Superintendent Public Schools, Berlin, Ill., 1877-'78; Associate Principal, School of Oratory, Kansas City, Mo., 1878-'81, and Director of same, 1884-'92; Instructor, Elocution, Ohio Wesleyan, Missouri State, and Kentucky State Universities, 1882-'90; Assistant Professor, English Department, Kansas State University, 1890-'91; Professor of Elocution and Oratory, Ohio Wesleyan University, since 1891; Lecturer, Elocution and Oratory, Ohio State University, 1892-'95; present position since 1895.

WILLIAM FOREST HUNTER.....1032 Bryden Road; 18 Board of Trade

Dean of the College of Law, Professor of the Law of Sales, Bailments, Evidence, Mortgages, Wills, Suretyship, Construction of Contracts, Law of Corporations Judge of Moot Courts

Admitted to the Bar in 1861; Student, University of Michigan Law School; practicing attorney since 1866; Dean of the Law School, Ohio State University, 1892-'96; present position since 1896.

WILLIAM THOMAS MAGRUDER.....329 West Eighth avenue

Professor of Mechanical Engineering

M. E., Stevens Institute of Technology, 1881. Student in Machine Design and Shop Practice, Taunton, Mass., 1881-'86 and in Chemistry and Mathematics, etc., Johns Hopkins University, 1886-'87; Professor of Mechanical Engineering (practical and theoretical) Vanderbilt University, 1887-'96; Present position since September, 1896.

J. P. GORDY.....The Normandie

Professor of Education

Ph. D., University of Leipsic, 1884. LL. D., Western University of Pennsylvania, 1897. Student in Philosophy at Leipsic, 1883-'84; Student in Philosophy at Johns Hopkins University, 1886; Assistant in Revision of Webster's Dictionary, 1884-'85; Professor of Philosophy and Pedagogy, Ohio University, Athens, 1886-'96. Translator of the first two volumes of Kuno Fischer's History of Modern Philosophy; Editor of the Journal of Pedagogy, 1887-'90; "Lessons in Psychology," "The Training of Teachers in the United States," "History of Political Parties in the United States." Present position since September, 1896.

WILLIAM MCPHERSON, JR.....97 Hamilton avenue

Professor of Chemistry

B. Sc., Ohio State University, 1887; M. Sc., Ohio State University, 1890; D. Sc., Ohio State University, 1895. Instructor in Chemistry and Physics, Toledo High School, 1887-'89; Instructor in Chemistry, Toledo High School and Manual Training School, 1889-'92; Assistant in Chemistry, Ohio State University, 1892-'93; Assistant Professor in Chemistry, Ohio State University, 1893-'95; Associate Professor, General Chemistry, Ohio State University, 1895-'97; present position since 1897.

DAVID FRANKLIN PUGH.....1320 Highland street; Board of Trade

Professor of Equity Jurisprudence and Law of Real Property

Member of West Virginia Constitutional Convention, 1872; Member of Legislature, West Virginia, 1874-'75; Prosecuting Attorney, Tyler County, West Virginia, 1870-'80; Common Pleas Judge, Franklin County, Ohio, since 1887. Present position since 1891.

EMILUS OVIATT RANDALL1025 Oak street; Supreme Court Room
Professor of Agency, Commercial Law and Partnership

Ph. B., Cornell, 1874; LL. B., LL. M., Ohio State University, 1892. Admitted to practice, 1890; Secretary Ohio State Historical Society; Reporter, Supreme Court of Ohio. Present position since 1893.

EDGAR BENTON KINKEADWyandotte avenue; Board of Trade
Professor of Pleading and Probate Practice, Torts, Criminal Law, Ethics, Trial Practice and Law of Contracts (Engineers)

Author of "Code Pleading;" Editor of *Ohio Law Journal*. Present position since 1895

WILLIAM HERBERT PAGEThe Vendome; 27 Board of Trade
Professor of Elementary Law, Contracts and Wills

B. A., Yale, 1889; LL. B., Ohio State University, 1892; LL. M., same institution, 1894. Instructor in Central High School, Columbus, Ohio, 1889-'96. Present position since September, 1896.

CHRISTOPHER P. LINHARTThe Great Southern; The Vendome
Director of the Gymnasium, and Instructor in Physical Education

M. D., Western Reserve University, Cleveland, 1882. Post-graduate student, same institution, 1882-83. Student and Instructor, Dr. Anderson's Normal School of Physical Education, 1886; student in Harvard Summer School, 1887; House Physician and Surgeon, Cleveland City Hospital, 1883-85; Assistant Demonstrator of Anatomy, Western Reserve University, 1885-'86 and Assistant Visiting Physician Charity Hospital, Cleveland, 1886; Director of Y. M. C. A. Gymnasium, Orange, N. J., 1886 and 1888; Instructor in Physiology and Physical Education, Newark, (N. J.), Academy, 1887 and 1890, and Director of Physical Education Newark, N. J., Public Schools, 1888-90; Medical Director Manhattan Athletic Club, 1891 and 1892; Instructor in Physiology and Physical Education, Union College, 1892-97. Present position since 1897.

JOSEPH NELSON BRADFORD54 West Tenth avenue
Associate Professor of Drawing

M. E., Ohio State University, 1883. Draftsman, Ohio Geological Survey, 1882; Machinist and Draftsman, Pittsburg, Cincinnati & St. Louis Railroad, 1883-85; Assistant in Mechanical Engineering and Drawing, Ohio State University, 1885-90; Assistant Professor of Drawing, Ohio State University, 1890-'93. Present position since 1893.

HENRY CURWEN LORD401 West Sixth avenue
Director of the Emerson-McMillin Observatory, and Associate Professor of Astronomy

B. Sc., University of Wisconsin, 1889. Assistant in Washburn Observatory, University of Wisconsin; with Thompson-Houston Electric Company, 1889; Assistant in Mathematics and Astronomy, Ohio State University, 1891-'94; elected Fellow, Royal Astronomical Society, 1897. Present position since 1895.

DAVID STUART WHITEWest Fifth avenue
Associate Professor of Veterinary Medicine, and Dean of the College of Veterinary Medicine

D. V. S., Ohio State University, 1890. Student, Royal Veterinary Schools of Hanover, Berlin and Dresden, 1890-'91; at Imperial Veterinary Institute of Vienna, 1891-'93; Assistant in Veterinary Medicine, Ohio State University, 1893. Present position since 1895.

FRANK ARNOLD RAYThe Dennison
Associate Professor of Mine Engineering

M. E., Ohio State University, 1887. Since then engaged in various lines of work coming within the range of Mine Engineering; Assistant Professor of Mine Engineering, Ohio State University, 1895-'96. Present position since 1896.

FRANCIS CARY CALDWELL380 West Eighth avenue
Associate Professor of Electrical Engineering

A. B., Cornell, 1890; M. E. Cornell, 1891. With Thompson-Houston Works, Lynn, Mass., 1891-'92; Student at the National Polytechnic, Zurich, 1892-'93; Assistant Professor of Physics, Ohio State University, 1893-'97. Present position since 1897.

PERLA G. BOWMANThe Dennison

Associate Professor of Domestic Science

Graduate of Toledo High School; Graduate of Toledo Manual Training School; Student at Wells College; Instructor in Toledo Manual Training School; Director of Domestic Science, Toledo Manual Training School; Special Student at Pratt Institute (Brooklyn), and the University of Michigan. Present position since September, 1897.

OLIVE B. JONES53 Eleventh avenue

Librarian

Assistant Librarian, 1887. Student, Library Science, Amherst, summer of 1892. Present position since 1893.

EMBURY ASBURY HITCHCOCK380 West Eighth avenue

Associate Professor of Experimental Engineering

M. E., Cornell, 1890. Straightline Engine Company, Syracuse, N. Y., 1889; Corliss Steam Engine Company, Providence, R. I., 1890-'93; Assistant in Mechanical Engineering, Ohio State University, 1893-'95; Assistant Professor, Experimental Engineering Ohio State University, 1895-'97; Present position since 1897.

GEORGE WASHINGTON MCCOARD40 West Third avenue

Assistant Professor of Mathematics

B. A., Bethany, West Virginia, 1873; M. A., Bethany, 1882. Principal of Oakdale Classical Normal Institute, Allegheny County, Pennsylvania, 1873-'74; Private Tutor in Cleveland, Ohio, 1874-'80; Principal of Public Schools, Irving Park, Chicago, 1880-'81; Teacher of Latin and Mathematics, Columbus High School, 1881-'82; Assistant in Mathematics and Latin, Ohio State University, 1882-'87. Present position since 1887.

WILBUR HENRY SIEBERT1332 Highland street

Assistant Professor of History

A. B., Ohio State University, 1888; A. B. (with honorable mention) Harvard University, 1889; M. A., Harvard, 1890. Student, Freiburg and Berlin, 1890-'91; Student, Harvard, 1895; Assistant in History and Political Science, Ohio State University, 1891-'93; Assistant Professor of History, Ohio State University, 1893-'95; Student, Harvard University, 1895-'97.

CHARLES WALTER MESLOHUniversity Grounds

Assistant Professor of German

A. B., Ohio State University, 1889; M. A., Ohio State University, 1895. Student in the University of Chicago, 1894; Student, University of Berlin, 1896-'97; Teacher of German, Ohio State University, since graduation.

WILLIAM DAVID GIBBS319 West Fifth avenue

Assistant Professor of Agriculture

B. Sc., University of Illinois, 1893. Fellowship in Agriculture, University of Illinois, 1893-'94; Post-graduate work, University of Illinois and University of Wisconsin, 1895; Expert Assistant in Division of Agricultural Soils of the United States Department of Agriculture, summer of 1895; Teacher of Bacteriology, University of Illinois, fall term, 1893; Assistant in Animal Husbandry, University of Illinois, winter term, 1894; Assistant in Agriculture, Ohio State University, spring and fall terms, 1895. Present position since 1895.

HERBERT JAMES NOYESRichland City, Wisconsin

Assistant Professor of Dairy Husbandry

President, National Butter and Cheese Makers' Association, 1891; Chief Instructor, Wisconsin Dairy School, 1892-'94; Instructor, Wisconsin Dairymen's Association, 1894. Present position since 1893.

FREDERICK CONVERSE CLARKIndianola avenue

Assistant Professor of Economics and Sociology

A. B., University of Michigan, 1887; A. M., University of Michigan, 1888; Ph. D., University of Michigan, 1891. Student at Halle and Berlin, 1893-'95; Instructor in History and Economics, Ann Arbor High School, 1888-'92; Assistant Professor of Political Economy, Stanford University, 1892-'93. Present position since 1895.

JAMES STEWART HINE.....248 West Fourth avenue

Assistant Professor of Entomology

B. Sc. (H. and F.) Ohio State University, 1893. Student in Entomology, Cornell, 1895. Present position since 1895.

JAMES ELLSWORTH BOYD.....25 Maynard avenue

Assistant Professor of Physics

B. Sc., Ohio State University, 1891; M. Sc., Cornell, 1896. Student in Physics and Mathematics, Ohio State University, 1893-'95; Student in Experimental and Theoretical Physics, Cornell, 1895-'96; also Student in Sibley College of Mechanic Arts, Cornell, summer of 1895. Assistant in Physics, Ohio State University, 1891-'95; held scholarship in Physics, Cornell, 1895. Present position since September, 1896.

JOSEPH RUSSELL TAYLOR.....86 King avenue

Assistant Professor of Rhetoric and English Language

B. A., Ohio State University, 1887. Taught in Township Schools, Madison County, Ohio, 1887-'88; Assistant in Drawing, Ohio State University, 1889-'94; Student, English, Columbia, 1896-'97; M. A., Columbia, 1897; Assistant in Rhetoric, Ohio State University, 1894-'97. Present position since 1897.

CLAIR ALBERT DYE.....169 King avenue

Assistant in Pharmacy

G. Ph., Ohio State University, 1891. Post-graduate student in Chemistry and Pharmacy, Ohio State University; Assistant in Chemistry and Pharmacy, 1890-'94. Present position since 1894.

CHRISTOPHER ELIAS SHERMAN.....772 Oak street

Assistant Professor of Civil Engineering

C. E., Ohio State University, 1894. Engaged in Civil Engineering in Ohio, Tennessee, Virginia, North Carolina and Arizona for three years, during college course; also engaged in railroad, geological and governmental engineering work. Present position since September, 1896.

WILLIAM LUCIUS GRAVES.....1313 Forsyth avenue

Assistant Professor of Rhetoric

B. A., Ohio State University, 1893. Principal, High School, Coshocton, 1894-'95; Fellow, and Assistant in Rhetoric and English Language, Ohio State University, 1895-'96. Present position since 1896.

ARTHUR WINFRED HODGMAN.....164 West Ninth avenue

Assistant Professor of the Ulassic Languages

A. B., Harvard, 1890; A. M. Harvard, 1893; Ph. D. (Classical Philology) Harvard, 1896. Student in Graduate School, Harvard, Classical Philology, 1892-'96. Instructor in Preparatory Schools, Quincy, Duxbury, Mass., 1890-'92; Assistant in Greek and Latin, Ohio State University, 1896-'97. Present position since September, 1897.

STELLA M. ELLIOTT.....54 West Tenth avenue

Assistant Director of the Gymnasium

Student, University of Nebraska three years; Chautauqua School of Physical Education, summer of 1897; Assistant in Physical Training, University of Nebraska two years; Y. M. C. A. classes in Physical Training, Lincoln, Nebraska, one year, and in Aurora, Illinois, one year.

PAUL JONES.....1194 Bryden Road; 2 Hayden Building

Lecturer on the Law of Contracts

B. A., Ohio State University, 1880. Present position since 1891.

FAXON FRANKLIN DUANE ALBERY.....37 Lexington avenue; 119½ S. High street

Lecture on the Law of Insurance

Student of Law and Philosophy in the University of Berlin and the University of Leipsic. Present position since September, 1896.

JAMES HENRY COLLINS.....57 Lexington avenue: Ruggery Building

Lecturer on Federal Practice

In practice for thirty years. Present position since 1891.

JOHN ALLEN SHAUCK.....Columbus Club: Supreme Court Room

Lecturer on Supreme Court Practice and Special Cases

B. A., Otterbein University; LL. B., University of Michigan, 1867; A. M. Otterbein University 1870; LL. D., Otterbein University, 1897. Judge of the Supreme Court of Ohio.

CHARLES LINCOLN ARNOLD.....334 West Eighth avenue

Assistant in Mathematics

B. Sc., Ohio State University, 1890; M. Sc., Ohio State University, 1894. Post graduate Student, University of Chicago and Ohio State University, 1894-'95. Present position since 1890.

THOMAS EWING FRENCH.....435 East Naughton street

Assistant in Drawing

M. E., Ohio State University, 1895. Assistant in Drawing Department three years preceding graduation; Draftsman, The Smith-Valle Company, Dayton, 1888-'90; Instructor in Mechanical Drawing, Y. M. C. A., Dayton, 1888-'91; Chief Draftsman, The Smith-Valle Company, Dayton, 1891. Present position since 1891.

CHARLES WILLIAM WEICK.....51 East Eighth avenue

Assistant in the Industrial Department and Foreman of the Carpenter and Pattern Shops

B. Sc., Industrial Arts, Ohio State State University, 1898. Student, Cornell University, summer 1898; Foreman in pattern shops Buffalo Forge Co., Buffalo, N. Y., 1881-'88; Johnson Steel Co., Johnstown, Pa., 1888-'89; Draftsman Buffalo Forge Co., Buffalo, N. Y., 1889-'92; Chief Draftsman and Designer, Horner Machine Co., Holyoke, Mass., 1892-'93. Present position since 1893.

WILLIAM ABNER KNIGHT.....206 West Lane avenue

Assistant in the Industrial Department and Foreman of the Machine Shops

Present position since 1893.

KARL DALE SWARTZEL.....57 East Eighth avenue

Assistant in Mathematics

B. Sc., Ohio State University, 1893; M. Sc., Ohio State University, 1894. Fellow and Assistant in Mathematics, Ohio State University, 1894-'95. Present position since 1895.

THOMAS KENYON LEWIS.....68 East Seventh avenue

Assistant in Drawing

B. Sc., Ohio State University, 1894. Graduate Student, Ohio State University, 1894-'95. Present position since graduation.

CHARLES A. BRUCE.....234 West Tenth avenue

Assistant in French

B. A., Ohio State University, 1895. Student of French, Amherst, 1895. Present position since graduation.

JOHN ADAMS BOWNOCKER.....1504 Neil avenue

Assistant in Geology

B. Sc., Ohio State University, 1889; D. Sc., Ohio State University, 1897. Principal of High School, Martin's Ferry, 1889-'92; Fellow in Geology, University of Chicago, 1892-'94; Graduate Scholar, Yale University, 1894-'95; Assistant Geological Survey of Ohio, 1892; Assistant Geological Survey of New Jersey, 1893. Present position since 1895.

FRANCIS LEROY LANDAORE.....70 West Tenth avenue

Assistant in Zoology

B. A., Ohio State University, 1895. Present position since graduation.

WILLIAM FINLEY LAVERY.....North Dormitory

Assistant in Veterinary Medicine

D. V. M., Ohio State University, 1890. Veterinary practitioner, 1892-'96. Present position since 1896.

- FRANK HAAS.....233 Eleventh avenue
Assistant in Metallurgy and Mineralogy
 C. E., Ohio State University, 1895; E. M., Ohio State University, 1896. Present position since graduation.
- *WILLIAM LLOYD EVANS.....189 Jefferson avenue
First Assistant Director, Clay-Working and Ceramics
 B. Sc., Ohio State University, 1892; M. Sc., Ohio State University, 1896. Assistant Chemist, American Encaustic Tiling Company, Zanesville, Ohio, 1892-'94; Graduate Student, Ohio State University, 1895; Fellow in Chemistry, Ohio State University, 1895-'96. Present position since 1896.
- CHARLES CONRAAD SLEFFEL.....174 West First avenue
Assistant in Industrial Department and Foreman of the Forge Room
 Sixteen years' experience in work-shops. Present position since September, 1896.
- ALBERT EARL VINSON.....134 West Ninth avenue
Assistant in Agricultural Chemistry
 Instructor in Chemistry, Y. M. C. A., Dayton Ohio, 1895. Present position since September, 1896.
- CHARLES WILLIAM FOULK.....41 Eleventh avenue
Assistant in General Chemistry
 B. A., Ohio State University, 1894. Present position since September, 1896.
- CHARLES WILLIAM BURKETT.....1556 Neil avenue
Assistant in Agriculture
 B. Sc., (Ag.) Ohio State University, 1895. Foreman of State Farm, Ohio State University, 1895-'96. Present position since 1896.
- FREDERICK EDWARD KESTER.....1473 Neil avenue
Assistant in Physics
 M. E. (in E. E.), Ohio State University, 1895. Fellow in Physics, Ohio State University, 1895-'97. Present position since 1897.
- EDWARD M. VAN HARLINGEN.....1594 Neil avenue
Assistant in Anatomy and Physiology
 B. Sc., Ohio State University, 1883; M. Sc., Ohio State University, 1897. Graduate Student Ohio State University, 1896-'97.
- JOHN H. SCHAFFNER.....79 East Third avenue
Assistant in Botany
 A. B., Baker University, Kansas, 1893. A. M., University of Michigan, 1894; M. S., Baker University, 1896. Student in Botany, Zoology and Geology, University of Michigan, 1893-'95. Student in Botany and Paleo-Botany, University of Chicago, 1896-'97. Assistant in Botany, University of Michigan, 1894-'95. Professor of Natural Sciences, University of South Dakota, 1895-'96.
- CLARK WISSLER.....1355 North High street
Assistant in Philosophy and Pedagogy
 B. A., Indiana University, 1897. Assistant in Philosophy, Indiana University, 1895-'97.
- † THEODORE GRIFFIN.....
First Assistant Director, Clay-Working and Ceramics
- CHENA B. HINE.....University Farm House
Assistant in Horticulture and Forestry

* Resigned December, 1897.

† From January, 1898.

- WARREN KING MOORHEAD.....1080 Madison avenue
Curator of the Archæological Collection
 Assistant, Smithsonian Institution, 1888-'89; Assistant in Anthropology, World's Fair, 1891-'93.
- JAMES GRANT BOYD.....38 West Woodruff avenue
*Fellow, and Assistant in Veterinary Medicine.**
 D. V. M., Ohio State University, 1897.
- CHARLES BYRON FREDERICKS.....Veterinary Hospital
Fellow, and Assistant in Veterinary Medicine
 V. M. and S., Ontario Veterinary College, 1893. In practice since graduation.
- HARRY WALDO KUHN.....221 West Eleventh avenue
Fellow, and Assistant in Mathematics
 B. Sc., Ohio State University, 1897.
- JOHN RUDOLPH SPURRIER.....224 West Franklin avenue
Fellow, and Laboratory Assistant in Electrical Engineering
 E. E., Ohio State University, 1896. Fellow and Laboratory Assistant in Mechanical Engineering, Ohio State University, 1896-'97.
- ROBERT FISHER.....810 Franklin avenue
Fellow, and Laboratory Assistant in Chemistry
 G. Ph., 1895, M. Ph., 1896, Ohio State University. Special Student in Chemistry, same institution, 1896-'97.
- *EDWARD THOMPSON WATSON.....165 West Ninth avenue
Fellow, and Laboratory Assistant in Chemistry
 B. Sc., 1897, Ohio State University.
- JOHN FERGUSON CUNNINGHAM.....1462 Worthington street
Fellow, and Laboratory Assistant in Horticulture and Forestry.
 B. Sc., (in Horticulture), 1897, Ohio State University.
- JOHN HERBERT FOX.....199 West Eleventh avenue
Fellow, and Laboratory Assistant in Industrial Arts
 M. E., 1897, Ohio State University.
- HORACE JUDD.....22 West Woodruff avenue
Fellow, and Laboratory Assistant in Mechanical Engineering
 M. E., 1897, Ohio State University.
- †FRANK ORRVILLE CLEMENTS.....
Fellow, and Laboratory Assistant in Chemistry
- MELVIN DRESBACH.....236 West Eighth avenue
Fellow, in Anatomy and Physiology
 B. Sc., 1897, Ohio State University.
- CLYDE T. MORRIS.....818 Kerr street
Emerson McMillin Fellow, and Assistant in Astronomy.
- HARRIET TOWNSHEND.....53 West Eleventh avenue
Library Assistant
 Present position since September, 1895.

*Resigned, November, 1897.

†From December, 1897.

MAUD DOROTHY JEFFREY65 West Eleventh avenue

Library Assistant

B. Ph., Ohio State University, 1895. Student of Library Science, Ohio State University, 1895-'96. Student of Library Science, Amherst, summer of 1897. Present position since September, 1896.

GERTRUDE STOWELL KELLICOTT1332 Highland street

Library Assistant

Student (irregular) Ohio State University, 1888-'95. Student of Library Science, Ohio State University, 1895-'96. Student of Library Science, Amherst, summer of 1897. Present position since September, 1896.

Changes, 1898-99

WITHDRAWN

Professor Arthur Lyman Williston, Lecturer Paul Jones, Lecturer George K. Nash, Assistant Berthold August Eisenlohr, First Assistant Director of Ceramics William Lloyd Evans, Assistant Charles William Burkett, Assistant Frank Haas, Curator of Archaeological Collections Warren K. Moorehead.

APPOINTMENTS

HERBERT OSBORN357 West Seventh avenue

Professor of Zoology and Entomology

B. Sc., Iowa Agricultural College, 1879; M. Sc., same institution 1880. Student at Museum Comparative Zoology (Cambridge, Mass.) 1881-'82. Entomology; College of Physicians and Surgeons, Des Moines, 1884-'85 (Anatomy and Physiology); Zoological Station Naples (Smithsonian table), 1894-'95. Assistant in Zoology and Entomology, Iowa Agricultural College, 1890-'83; Assistant Professor of Zoology and Entomology, Iowa Agricultural College, 1884-'86. Professor and Entomologist, Iowa Agricultural College, 1887-'98; Special Agent Division Entomologist U. S. Department of Agriculture, 1885-'94. State Entomologist, Iowa, 1898.

FRANK EDWIN SANBORN167 West Eleventh avenue

Director of the Department of Industrial Arts

S. B., in Mechanical Engineering, Massachusetts Institute of Technology, 1889. Assistant in Drawing, Massachusetts Institute of Technology, 1889-'90; Teacher in Manual High School Department, Pratt Institute, 1890-'91; Walker Special Instructor Tufts College, 1891-'94; Instructor in Mechanical Department, Tufts College, 1894-'98. Present position since September, 1898.

*RAYMOND MOLLYNEAUX HUGHES.....

Assistant Director of the Department of Clay Working and Ceramics

B. A., Miami, 1893. Student of Chemistry, Chicago University, 1894; Student of Chemistry, Miami, 1894-'95; Teacher of Chemistry and Physics, High School, Hamilton, Ohio, 1893-'95; Student in Chemistry at Massachusetts Institute of Technology, 1897-'98.

MURRAY P. BRUSH532 East Broad street

Assistant in Romance Languages

A. B., Princeton, 1894; Ph. D., Johns Hopkins, 1898. Student, French Language and Literature in Paris, winter of 1895-96, attending lectures at the Sorbonne, College de France, and Ecole des Hautes-Etudes; Romance Department of Johns Hopkins, 1894-'95 and 1896-'97. Summer of 1897 in Libraries of Italy.

FRANK RUHLEN1568 Neil avenue

Assistant in Agriculture

B. Sc., (Agr.) Ohio State University, 1896.

*Resigned, September, 1898.

SARAH STUBBS JAMES.....

Assistant in Domestic Economy and Instructor in Domestic Art

Student in University of Cincinnati, 1892-'93. Student in Miami University, Oxford, O., 1887-'88. Student in Institute of Technology, Boston, Mass., 1896-'97. Student in Columbia University, 1897-'98. Teacher in the Public Schools of Cincinnati, 1875-'79, and in Woodward High School, Cincinnati, O., 1879-'84.

ALBERT V. BLEININGER.....North Dormitory

Assistant Director of the Department of Clay Working and Ceramics

Present position since 1898.

NEWTON HENRY BROWN.....1609 North High street

Assistant in Physics

M. E. in E. E., Ohio State University, 1893; M. A., Cornell University, 1898; Student Assistant in Physics, 1892-'93; Assistant in Physics, Ohio State University, 1893-'96. Present position since September, 1898.

EDWARD EVERETT SOMERMEIR.....113 West Frambes avenue

Assistant in Metallurgy and Mineralogy

G. Ph., Ohio State University, 1898. Student laboratory assistant in chemistry, 1897-'98. Present position since September, 1898.

BURT BIDWELL HERRICK.....

Instructor in Cheese Making

ELISHA SMITH.....

Assistant in Cheese Making

WILLIAM C. MILLS.....91 West Frambes avenue

Curator of Archaeology

B. Sc. (H. and F.), Ohio State University, 1898.

FREDERICK T. HALE.....239 West Tenth avenue

Fellow, and Laboratory Assistant in Mechanical Engineering

M. E. Ohio State University, 1898.

JOHN BERNARD PARKER.....43 West Woodruff avenue

Fellow, and Assistant in Rhetoric and English Language

B. A., Ohio State University, 1898. Present position since September, 1898.

FRED ALAN FISH.....239 West Eleventh avenue

Fellow, and Laboratory Assistant in Electrical Engineering

M. E. (in E. E.) Ohio State University, 1898.

EMMA LEANNA BALL.....225 King avenue

Fellow, and Assistant in Mathematics

B. Sc., Ohio State University, 1895; M. Sc., same institution, 1896.

ALFRED HEBER MCINTIRE.....240 West Eighth avenue

Fellow in Industrial Arts

M. E. in E. E., Ohio State University, 1898.

SAMUEL EUGENE RASOR.....22 West Woodruff avenue

Fellow, and Assistant in Mathematics

B. Sc., Ohio State University, 1898. Present position since September, 1898.

- Osceola*
~~OLIVER V. BRUMLEY~~.....
Fellow and Assistant in Veterinary Medicine
 Veterinary Surgeon's certificate, Ohio State University, 1897. Practiced 1897-'98.
- BENJAMIN MAAG.....164 West Ninth avenue
Emerson McMillen Fellow and Assistant in Astronomy
 Ph. B., Wooster University, 1893.
- LUCY ALLEN.....31 East Seventh avenue
Library Assistant
 B. A., Ohio State University, 1897. Student in Library Science under Dr. G. E. Wire, summer of 1898 at Ohio State University. Present position since September, 1898.

Changes in Titles

- GEORGE WELLS KNIGHT, 1897-'98—Professor of History and Political Science and of Constitutional Law
 1898-'99—Professor of American History and Political Science, and of Constitutional Law; and in charge of European History
- DAVID S. WHITE, 1897-'98—Associate Professor of Veterinary Medicine
 1898-'99—Professor of Veterinary Medicine
- PERLA G. BOWMAN, 1897-'98—Associate Professor of Domestic Science
 1898-'99—Associate Professor of Domestic Science in charge of the Department of Domestic Economy
- FREDERICK CONVERSE CLARK, 1897-'98—Assistant Professor of Economics and Sociology
 1898-'99—Associate Professor of Economics and Sociology (Independent)
- WILBUR HENRY SIEBERT, 1897-'98—Assistant Professor of History
 1898-'99—Associate Professor of European History
- WILLIAM DAVID GIBBS, 1897-'98—Assistant Professor of Agriculture
 1898-'99—Associate Professor of Agriculture
- STELLA M. ELLIOTT, 1897-'98—Assistant Director of the Gymnasium
 1898-'99—Associate Director of the Gymnasium
- EDWARD N. VAN HARLINGEN, 1897-'98—Assistant in Anatomy and Physiology
 1898-'99—Assistant Professor of Anatomy and Physiology
- CHARLES WILLIAM FOULK 1897-'98—Assistant in Chemistry
 1898-'99—Assistant Professor of Analytical Chemistry
- THOMAS EWING FRENCH, 1897-'98—Assistant in Drawing
 1898-'99—Assistant Professor of Drawing
- JOHN ADAM BOWNOCKER, 1897-'98—Assistant in Geology
 1898-'99—Assistant Professor of Geology
- CLAIR A. DYE, 1897-'98—Assistant in Pharmacy
 1898-'99—Assistant Professor of Pharmacy
- WILLIAM ABNER KNIGHT, 1897-'98—Assistant in the Industrial Department and Foreman of the Machine Shops
 1898-'99—Assistant in Industrial Arts and Instructor in Machine Work
- CHARLES WILLIAM WEICK, 1897-'98—Assistant in Industrial Department and Foreman of the Carpenter and Pattern Shops
 1898-'99—Assistant in Industrial Arts and Instructor in Pattern Making and Founding

CHARLES CONRAD SLEFFEL,	1897-'98—Assistant in Industrial Department and Foreman of Forge Room
	1898-'99—Assistant in Industrial Arts and Forge Master
JOHN FERGUSON CUNNINGHAM,	1897-'98—Fellow in Horticulture and Forestry
	1898-'99—Assistant in Horticulture and Forestry
CHARLES B. FREDERICKS,	1897-'98—Fellow and Assistant in Veterinary Medicine
	1898-'99—Assistant in Veterinary Medicine
*HARRY WALDO KUHN,	1897-'98—Fellow and Assistant in Mathematics
	1898-'99—Assistant in Mathematics

*Absent on leave.

Executive Department

1898-'99

JAMES H. CANFIELD	President
ALEXIS COPE.....	Secretary Board of Trustees and Bursar
W. C. McCRACKEN.. ..	Chief Engineer
JEAN BLACKFORD	Executive Clerk
EDITH D. COCKINS.....	Registrar
C. E. BARNET.....	Accountant
CHARLES LOWE.....	Assistant Engineer
THOMAS BOUDE	First Fireman
W. E. CASE	Second Fireman
JAMES KELLEY	Lawnkeeper
HENRY MARTZ.....	Watchman

JANITORS

ARTHUR CHANTLER.....	University Hall
HENRY CHANTLER	Orton Hall
J. F. LONGMAN.....	Chemical Hall
JOHN H. BROWN.....	Hayes Hall
JOHN CONRAD.....	Horticultural Hall and Veterinary Hospital
D. D. GEREN.....	Gymnasium
WILLIAM WHITESTINE	Biological Hall
M. N. COOK	Townshend Hall

University Addresses

June 12th.....Baccalaureate Sermon, "The Christian of Culture in American Life"
 RIGHT REV. WILLIAM LAWRENCE, D. D.,
Bishop of the Protestant Episcopal Church, Diocese of Massachusetts

June 15th.....Commencement Address
 REV. CASPAR WISTER HIATT, D. D.,
Euclid Avenue Congregational Church, Cleveland

FACULTY LECTURE COURSE

January 17th....."What a Small Connecticut Farm can Produce"
 MR. AMASA PRATT, Columbus

January 24th....."Employer and Employee"
 MR. H. M. HYDE, Dayton
National Cash Register Co

January 31st....."Murillo"
 CAPTAIN ALFRED LEE, Columbus
Under the auspices of the University Sketch Club

February 7th....."Pure Water Supply of Cities"
 MR. JOHN W. HILL, Cincinnati

February 14th....."Thomas Jefferson"
 PROFESSOR J. P. GORDY, Columbus

February 28th....."Athletics—Ancient and Modern"
 PROFESSOR J. R. SMITH, Columbus

March 7th....."The Water of the Scioto River"
 PROFESSOR N. W. LORD, Columbus

March 14th....."A Day in the Police Court"
 JUDGE SAMUEL J. SWARTZ, Columbus

March 21st....."The Ethical Self"
 DR. W. H. SCOTT, Columbus

DEPARTMENT LECTURES

Agriculture

October 13 and 14, 1897....."Training and Gaiting Saddle Horses"
 MR. J. A. WALLACE, Columbus

February 21, 1898....."Dairy Farming in Europe"
 PROFESSOR JOHN W. DECKER, University of Wisconsin

February 28th, March 1st, 2d, 3d.....Four lectures, "Breeding and Judging Sheep"
 MR. H. P. MILLER, Sunbury

March 10th....."Barn Building"
 MR. JOHN L. SAWYER, Bellefontaine

March 24th....."Writing for the Press"
 DR. W. I. CHAMBERLAIN, Hudson

HISTORY AND POLITICAL SCIENCE

Economics

November 18, 1897....."Through Freight"
 MR. C. C. CORNER, Columbus
Chief Clerk, Star Union Line

November 23, 1897	"The Division "
MR. T. F. WHITTLESEY, Toledo, <i>Gen. Supt., T. & O. C. R. R.</i>	
December 21, 1897.....	"Financial Management of Street Railways "
MR. P. V. BURREINGTON, Columbus, <i>Auditor, Columbus Street Railway Co.</i>	
January 18, 1898.....	"The Telegraph Service "
MR. A. M. DUNLAP, Columbus, <i>Manager of Western Union Telegraph Co.</i>	
January 20, 1898.....	"The College Man in Railroadng "
MR. S. H. CHURCH, Pittsburgh, <i>Assistant Secretary, Pennsylvania System</i>	
March 4th	"Our Foreign Trade "
MR. C. A. GREEN, Philadelphia, <i>Philadelphia Commercial Museum</i>	

History.

March 11th.....	"Washington the Man "
PROFESSOR EDWIN E. SPARKS, University of Chicago	

LECTURES BEFORE SOCIETIES

Engineers

March 13th.....	"Some Points in Dynamo Machinery "
MR. CHARLES F. SCOTT, Pittsburgh, <i>Westinghouse Electrical and Manufacturing Co.</i>	

Mathematical Society

May 26th	"The Making of Mathematical Text-books "
DR. E. E. WHITE, Columbus	

Political Science Club

December 15, 1897	"Garibaldi and the Liberation of Italy "
COL. WILLIAM JACKSON ARMSTRONG	

Ohio State Archæological and Historical Society

March 10th.....	"Cliff-Dwellers of the Southwest "
COL. ROBERT M. STANTON, Coronado Beach, Cal.	

THE UNIVERSITY

Ohio State University

THE UNIVERSITY AND THE STATE

Under an act of Congress passed July 2, 1862, the State of Ohio received from the United States a large grant of the public lands for the purpose of establishing a "college where the leading objects shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such a manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." In accordance with this act, the Ohio State University was founded by the State as a public institution of learning. The governing body of the institution is a Board of Trustees, appointed by the Governor of the State for terms of seven years as provided in the law organizing the University. The original endowment has been supplemented, and the objects of the University promoted, by a permanent annual grant from the United States, under an act of 1890, by special appropriations of the General Assembly; and in 1891, by a permanent annual grant from the State, which grant was doubled by the Legislature of 1896. In accordance with the spirit of the law under which it is organized, the University aims to furnish ample facilities for education in the liberal and industrial arts, the sciences and the languages, and for thorough technical and professional study of agriculture, engineering in its various departments, veterinary medicine, pharmacy and law. Through the aid which has been received from the United States and from the State it is enabled to offer its privileges, with a slight charge for incidental expenses, to all persons of either sex who are qualified for admission.

THE STATE SYSTEM OF EDUCATION

A State system of free, public education, worthy of the name, freely offers every opportunity and inducement to its entire school population to pass by systematic methods, easily apprehended by those who are to receive the benefits, in schools under popular control, from the lowest seat in the primary school to graduation by a university of high standing. It is not supposed that all pupils can or will accept these opportunities or respond to these inducements. But the highest welfare of the State demands that both opportunity and inducement shall be continually present, and that the broad and firm highway of sound training and of higher learning shall be opened freely to every child of the State.

The State system is naturally divided into three great sections. The first includes the rural or district schools, and the work done in the first eight grades of the city schools. To this is generally given the name of "the Grades." The second division includes the High Schools. The work of the third division is done by the University.

THE UNIVERSITY

This means that the University is practically the thirteenth, fourteenth, fifteenth and sixteenth grades of this State system of free public education. Its work is related to that of the High Schools precisely as their work is related to that of "the Grades." It ought to be quite as natural for a pupil to look forward from the High School to work in the University, or its equivalent, as to look forward from "the Grades" or the Rural Schools to work in the High Schools.*

ORGANIZATION OF THE UNIVERSITY

The Ohio State University is divided into six colleges, as follows:

The College of Agriculture and Domestic Science consists of those departments represented in the course leading to the degrees of Bachelor of Science in Agriculture, Bachelor of Science in Horticulture and Forestry and Bachelor of Science in Domestic Economy; in the Short Course in Agriculture, in the Short Course in Domestic Economy, and in the Course in Dairying.

The College of Arts, Philosophy and Science consists of those departments represented in the courses leading to the degrees of Bachelor of Arts, Bachelor of Philosophy, and Bachelor of Science; and in the Courses Preparatory to Law and to Journalism, and to Medicine.

The College of Engineering consists of those departments represented in the courses leading to the degrees of Civil Engineer, Engineer of Mines, Engineer of Mines in Ceramics, Mechanical Engineer, Mechanical Engineer in Electrical Engineering, and Bachelor of Science in Industrial Arts, Bachelor of Science in Chemistry or in Metallurgy; in the Course in Architecture, in the Short Course in Clay-working and Ceramics, and in the Short Course in Mining.

The College of Law consists of those departments represented in the course leading to the degree of Bachelor of Laws.

The College of Pharmacy consists of those departments represented in the courses leading to the degree of Bachelor of Science in Pharmacy, and in the Short Course in Pharmacy.

The College of Veterinary Medicine consists of those departments represented in the course leading to the degree of Doctor of Veterinary Medicine, and to a certificate of Veterinary Surgeon.

Each College is under the direction of its own Faculty, which has power to act in all matters pertaining to the work of students in that College.

LOCATION OF THE UNIVERSITY

The University is situated within the corporate limits of the City of Columbus, two miles north of the Union Depot and about three miles from the State Capitol. The University grounds consist of three hundred and thirty acres, bounded east and west by High street and the Olentangy river, respectively. The western portion, about 200 acres, is devoted to agricultural and horticultural purposes, and is under the management of the College of Agriculture and Domestic Science. The eastern portion is occupied by the principal University buildings, campus, athletic and drill grounds, a park-like meadow, and a few acres of primitive forest.

The grounds are laid out with care, ornamented with trees, shrubs and flower beds; and are so managed as to illustrate the instruction in Botany, Horticulture, Forestry, Landscape Gardening and Floriculture.

*Of course this does not mean that there will be but one institution of the College or University grade in the state; but that there will be at least one such institution in the state, which shall be recognized as belonging to the state system of public education and as the natural and logical head of that system.

The University may be reached by either the North High street or the Neil avenue electric cars. Those wishing to go to the principal buildings of the University, to the residences on the grounds, or the Athletic field, should take a High street car going north. Those wishing to visit the Emerson McMillin Observatory, the Veterinary Hospital, Townshend Hall, Horticultural Hall and the Dormitories, will find the Neil avenue cars more convenient.

BUILDINGS

UNIVERSITY HALL contains the Executive offices, the office of the Secretary of the Trustees, the assembly room (seating twelve hundred persons), four halls for literary societies, the Y. M. C. A. and King's Daughters' room, the Young Woman's League room, and class rooms and laboratories for the departments of Economics, English, French, German, Greek, History, Latin, Mathematics, Pedagogy, Political Science, Philosophy and Physics. An electric passenger elevator connects all floors.

MECHANICAL HALL contains a room fitted up with cases for the care of models, instruments of precision, etc.; a room for instruction in laboratory mechanics and draughting, and laboratories with the engines, hydraulic plant, testing machines, etc.

BOTANICAL HALL has on the first floor the lecture room of the department of Botany. There are also an office, a store room, a dark room, and a private laboratory for Physiological Botany. On the second floor is the botanical museum, the main laboratory and the assistant's laboratory. Connected with this building is a large greenhouse and propagating house.

ELECTRICAL HALL devotes the first floor to the dynamo room. The floor of this room is of asphalt, laid on a solid concrete foundation. On the second floor are a lecture and draughting room, a photometric room, a library room, and office, stock and locker rooms.

CHEMICAL HALL is now occupied by the departments of Chemistry, Mining, Metallurgy, and Pharmacy. The department of Chemistry occupies the middle and western portion of the second floor. The main lecture room has a seating capacity for one hundred and fifty persons. The qualitative laboratory contains accommodations for two hundred and forty students. The quantitative laboratory contains desks for eighteen students. There is also a second lecture room, accommodating forty persons; a room for the preparation of experiments, a balcony accessible both from the lecture room and the preparation room, two store rooms for supplies, a balance room, a room for working with foul gases, one for distilling water, one for spectroscopic work, one for rough work, one for books, a private laboratory, and an office.

The departments of Mining and Metallurgy occupy the east end of the building. In the basement are the smelting furnaces, the assay laboratory, a room for rough work and store room for supplies. On the first floor is the lecture room of the professor of Metallurgy, with a seating capacity of forty; a laboratory with desks for sixteen students, a store room, a balance room, a private laboratory and an office. On the second floor is the lecture room of the associate professor of Mine Engineering, a draughting room, a room for instruments and an office.

The department of Pharmacy occupies the first floor and basement in the west end of the building, and has a lecture room provided for sixty students; a preparation room, a laboratory with desks for twenty-five students; a room for supplies, a balance room, a model drug store and a private laboratory.

ORTON HALL is designed for the permanent accommodation of the large geological collection of the University and for work and instruction in the department of Geology. A portion of it is occupied by the library and reading room. The building is two stories in height, with a high basement, is built of brick and

faced with sandstone, and is fireproof throughout. At the right of the main entrance is the geological lecture room and professor's private room; at the left is the University library, reading room and librarian's private room. The central and rear portion is occupied by the geological and paleontological museums. The petrographical laboratory is located on the second floor. In the basement a room is used for work in geographical modeling, the finished models being afterward placed in the collection of such models in a room set apart for the purpose on the second floor. The basement accommodates also the museum of economic geology. A paleontological laboratory or working room is also provided on the second floor.

The greater part of the basement of Orton Hall is occupied as a laboratory by the department of Clay-working and Ceramics. This department is also accommodated with a large room on the first floor for recitation and exhibition purposes. In the rear of Orton Hall is a small brick structure used for the kilns of this department.

HAYES HALL is devoted to instruction in Industrial Arts, Drawing, Civil Engineering and Domestic Economy. On the first floor are two offices, the rooms of the department of Domestic Economy and two lecture rooms, the machine shop, the forge shop and the foundry. On the second floor are the carpenter and pattern shops and six large lecture rooms, with private rooms annexed.

The department of Drawing occupies the third floor for instruction in mechanical and free-hand drawing and photography.

HORTICULTURAL HALL contains recitation rooms and indoor laboratories of the department of Horticulture and Forestry. An extensive greenhouse is attached.

THE VETERINARY HOSPITAL contains on the first floor a veterinary museum and library, a dispensary and two private rooms for the persons in charge. On the second floor are a class room, a bacteriological laboratory and a microscopical laboratory. The rear extension contains an operating hall and a room provided with stalls, cages, etc., for the care of animals under treatment.

THE EMERSON McMILLIN OBSERVATORY is the gift of Mr. Emerson McMillin of New York. The first floor is divided by a hall and stairway into two parts. The east wing contains an office, library, clock room and a large well-lighted room for the students, furnished with tables, where they reduce their observations and keep the records of their work. The west wing contains the transit house, the dome and photographic dark room. The transit house is a light frame structure, so designed as to be kept as free as possible from heat radiated by any heavy walls of masonry. The dome is a wooden frame-work, covered on the outside with canvas. The rest of the building is of pressed brick, the foundation and second story being "rock-faced."

The equipment consists of a twelve-inch equatorial telescope, mounting by Messrs. Warner & Swasey, objective by Mr. Brashear, with a large and powerful spectroscope by Mr. Brashear. This instrument is adapted to use either one or two prisms or a grating, and is provided with a double set of objectives, one corrected for the visual and one for the photographic rays: a positive micrometer with a seven-inch circle by Messrs. Warner & Swasey a combined zenith telescope and transit instrument of three inches clear aperture by Mr. G. N. Saegmuller; a sidereal clock by Clemens Riefler of Munich; a comparator by Carl Ziliss; a four-inch portable equatorial by Alvan Clark; a chronograph by Warner & Swasey; sextants, chronometers, meteorological instrument, etc. In addition to the above, Mr. McMillin's gift provides for an excellent astronomical library.

TOWNSHEND HALL is devoted exclusively to the instruction given in the College of Agriculture.

On the left of the entrance is the office of the department of Agriculture and a private office, a stenographer's room and fireproof vault. Connected with the office on the south is an assistant's room, opening into a laboratory for advanced students.

At the extreme south end of this floor is a large laboratory for student-work in soils and farm crops. Connected with this laboratory is a balance room, a store room and an instructor's laboratory. On the west side of the main corridor, and connected with the instructor's room, is a large class room opening into a preparation room with a dark room. This class room is fitted with all appliances for showing lantern slides of livestock, buildings, machinery, etc. On the same side of the corridor, and on the right of the stairway leading to the basement and second floor, are the class room and instructor's room for dairying. On the right of the main entrance is the department reading room. The north end of this floor is occupied by the museum with an attendant's room.

The north end of the high basement is occupied by the dairy department. This consists of a receiving room, a pasteurizing room, a store room, a refrigerator room, a lavatory, butter-making room, cheese-making room, two cheese-curing rooms and an instructor's room.

In the south end of the basement is a livestock room about forty feet square. One third of this room is occupied by raised seats, the remaining floor space being used for exhibiting and judging livestock. Connected with this is a room fitted with stalls for the temporary accommodation of livestock when needed for class exercises. The basement also contains soil storage room, bath room, toilet rooms, repair shop, locker rooms, bicycle room and janitor's room. A small detached building will furnish steam and power for the dairy department. Detached from the main building, but connected with the soil storage room by a tramway, is a glass house for the study of soils and the experimental growth of plants.

The north end of the second story contains a large student laboratory for the department of Agricultural Chemistry, connected with an organic and analysis laboratory, a balance room, a store room and a private laboratory. The lecture room of this department is at the south end of this floor and will seat one hundred and sixty students on raised seats, with a preparation room adjoining. There is also on this floor a class room connecting with preparation room, store room and instructor's room, which is used (temporarily) by the department of Veterinary Medicine. There is also an extra class room, ladies' toilet and locker rooms and a hall for the use of the Townshend Society, designed to seat about two hundred persons.

BIOLOGICAL HALL is designed for the special accommodation of the departments of Entomology, Zoology, Anatomy and Physiology, and is fully equipped with all the latest and best apparatus for this work. It consists of a basement, in which is done all the work of preparation of subjects for the lecture tables and for the special laboratory work for the advanced students; the first floor, on which are lecture rooms, general and special laboratories, and private work rooms for the professor of Entomology and Zoology and his assistants; the second floor, similarly arranged for the work in Anatomy and Physiology; and a large wing, in which is the museum and a large lecture room. The building is fireproof throughout, and in design and general appearance is one of the most attractive on the campus.

THE GYMNASIUM AND ARMORY was first occupied in January, 1898. The drill hall and gymnasium floor is eighty feet wide by one hundred and fifty feet long. The roof is carried on curved steel arches, lighted from a clear story at the top. There is a running track around the entire room about twelve feet from the floor, back of which is a visitors' gallery seating about seven hundred persons. At the northwest corner of the floor is a stairway leading down to the men's locker and dressing room, while the young women go down a similar way at the southeast corner to their rooms. On the level with the main floor, near the main entrance at the south, is a large room for the use of the Commandant and his classes and rooms for the Director of the Gymnasium. Above the Commandant's room is the room for the officers of the University Cadet Corps.

The basement is very high and well lighted. On the young men's side are dressing and locker rooms, the bath room with shower and plunge baths, a bicycle room, a lecture room, the cannon room, the band room, and a large room which is to be the home of the University Athletic Association. On the young women's side are the locker rooms and bath rooms—precisely like those provided for the young men—a bicycle room, lecture room and private office for the instructor in sanitation and hygiene for young women.

THE NORTH DORMITORY is situated at the northern limit of Neil avenue, and fronts Eleventh avenue. It is at the terminus of the Neil avenue electric car line. It is a plain structure of brick, and affords accommodation for sixty-four students.

THE SOUTH DORMITORY stands near Neil avenue within a few rods of the North Dormitory. It is also built of brick, and contains rooms for twenty students.

RESIDENCES. There are seven dwelling houses upon the University campus. Five of these are brick and two are frame structures. One is occupied by the President of the University, five by professors, and the seventh is the farm house.

LABORATORIES AND EQUIPMENT

AGRICULTURE

The equipment of this Department may be divided along three general lines: the plant, the museum and the illustrative materials.

THE PLANT. This consists of a farm of about two hundred acres, a general farm barn, a horse barn, and several smaller buildings. The farm lies along the Olentangy river, and includes both first and second bottom land. On this farm are grown general farm crops in the rotation deemed best suited to the circumstances of the Department. At present a few experiments are conducted, the general idea being to conduct such experiments as will have the largest instructional value to the students who attend the College of Agriculture. The Ohio Agricultural Experiment Station continues to conduct here the elaborate fertilizer experiments with wheat, corn and oats, which it has been making on this farm during the past five years. Different species and varieties of farm crops are grown to some extent for the purpose of class illustration and instruction, and it is expected to enlarge this feature.

Specimens of the draft, coach and roadster type of horses are kept and used in the farm work. The Department manages a milk dairy; having a herd of about forty cows, composed of pure bred and grade Jerseys and shorthorns.

The general farm barn contains a well arranged stable for forty cows, with underground drainage and sewage cistern, a milk cooling room, a silo, a root cellar, a work-shop, with room for hay, grain and other foodstuffs.

THE MUSEUM. This contains a large number of samples of farm products in various forms and their by-products, such as soils, grains, grasses, wools, cotton, forage plants and foodstuff. Milling and other processes are illustrated by samples of the various products of manufacture.

The museum contains Auzoux models, samples of tools and a considerable miscellaneous collection. The collections are intended primarily for student use and not for display.

ILLUSTRATIVE MATERIALS. These consist of charts, pictures and lantern slides showing results of experiments, representative and noted specimens of live stock, farm machinery, fences, buildings, etc. The Department has and uses constantly in the class room a Beseler double oxygen-ether stereopticon. The collection of several hundred lantern slides for this purpose is constantly receiving additions.

THE AGRICULTURAL LIBRARY. While not considered as belonging specifically to this Department, there is in the general library a fairly good collection of books

and periodicals devoted to agriculture, a large use of which is required of the student.

THE LABORATORY OF SOIL PHYSICS is located on the second floor of Horticultural Hall, and is supplied with apparatus for the mechanical analysis of soils and for testing their physical properties. (*See also BUILDINGS—Townshend Hall*)

BOTANY

The general Botanical Laboratory occupies a part of the second floor of Botanical Hall. It is 23x33 feet, and is furnished with both movable and fixed tables. The latter are attached to the west and south walls near windows suitably shaded. Water, gas and an evaporating hood are also provided. The laboratory is equipped with compound microscopes of the Baush and Lomb, the Leitz and other patterns; and accompanying each is a tray of tools and a case of reagents. There are more than fifty dissecting microscopes, also charts, and several minor pieces of apparatus for experiments in vegetable physiology. Three smaller rooms are also provided as laboratories for special work, as well as a dark room for photography. Other facilities for the illustration of the courses in botany, and for practical training in the same, are: A general herbarium, including flowering plants, ferns, mosses, fungi and algae; a state herbarium, a collection of fruits and seeds, valuable timbers, woods, grasses and various economic products of the vegetable kingdom; ornamental grounds and woodland, planted with a large variety of evergreen and deciduous trees and shrubs; and a greenhouse with a fair collection of native and exotic plants. (*See also MUSEUMS—The Botanical Museum; and BUILDINGS—Botanical Hall.*)

CHEMISTRY

The laboratories of the Department accommodate two hundred and twenty-five students. The general lecture room is large and well lighted, and all needed facilities are provided for the full experimental illustration of the lecture courses. The Department is generously supplied with the best apparatus and materials for both lecture and laboratory work, and has also a growing collection of specimens illustrating the application of chemistry to the arts. (*See also BUILDINGS—Chemical Hall.*)

CIVIL ENGINEERING

The facilities provided for the illustration of the courses in civil engineering and for practical training are as follows: One high grade and three ordinary transits, four leveling instruments, solar compass, prismatic compass, improved telescope compass, Abney hand level, level and stadia rods, sight poles, chains, tapes; twenty-six improved drawing tables with 30" by 36" top; Schroeder's models in stereotomy of roof trusses; large set of models of wooden joints; collection of photographs of bridges, both when finished and in course of erection; collections of strain sheets and shop drawings of bridges; new improved cement testing machines and outfit for making all kinds of cement tests; stone mason tools for working models out of plaster blocks; magic lantern and slides; collections of samples of building materials; calculating machines; sets of drawing instruments; blue print room with outfit; set of tracings of standard structures from which each student may make a set of blue prints. The equipment is growing each year by the addition of materials purchased, presented, or made by students of the Department.

CLAY-WORKING AND CERAMICS

The University is the first, and at this time the only institution in the United States offering special facilities for the study of clays, clay-working, and the chemical technology of the ceramic art. The facilities of the Department comprise: 1st. A convenient chemical laboratory, specially designed and equipped for the analysis and decomposition of silicates. Provision has been made for the use of hydrofluoric acid with safety, and the platinum ware has been made to order with this purpose in view. 2d. A complete mechanical outfit for the preparation of clays for pottery manufacture and the production of the ware itself, of any grade from earthen wares to porcelain. The machinery is of the latest types and comprises all important varieties in use for grinding, tempering, washing, filtering and molding. 3d. A similar plant for the manufacture of brick, tiles, pipes and hollow goods. The machinery here is of full size and samples up to a ton in weight can be received and transformed into the finished articles by any or all of the standard methods in commercial use. The power for this purpose is derived from a fine electric motor, driven from the University power plant. 4th. A kiln house, equipped with a kiln in which several hundred bricks, or an equivalent quantity of sewer-pipe, stoneware, or pottery can be burnt. The fuel is intended to be coke, except in special cases where the fuel available for burning clay wares is to be made the subject of test. There is also provided a crucible melting furnace and a muffle furnace for testing glazes. A muffle kiln of large size for burning pottery, glazed ware and decorated wares has recently been put into operation. 5th. A ceramic museum, containing a fine collection of American pottery and clay products of every class, is in process of installation. 6th. A library of the best literature on the subject, mainly German but containing a few English and French works, and the trade periodicals. (See also BUILDINGS—*Orton Hall*.)

DOMESTIC ECONOMY

The Department of Domestic Economy (for young women) will secure for the course all that experience and observation may suggest. At present it has a large kitchen, with dining room adjoining, each fitted with the latest and best appliances for the work undertaken. About a thousand dollars has been expended to make this department entirely practical, and to permit its instruction to be as thorough and as scientific as that of any other department in the University.

DRAWING

The Department occupies the entire third floor of Hayes Hall, and is provided with the following equipment for the illustration of the work in drawing and for practical training in the same; For freehand drawing: Flat and shaded copies in pen, pencil and charcoal; wooden models of geometric forms; plaster casts of ornaments, flowers, fruit and the antique; easels and drawing tables; a well selected line of work from artists of recognized ability. For mechanical drawing: O. S. U. improved drawing tables (30" x 36" tops), a set of the celebrated Schroeder models, a collection of shop drawings and facilities for blue printing. For photography: A well arranged and equipped dark room, printing outfits, copying camera, four view cameras, lenses of long and short focus, flash lamp and shutter for instantaneous photography. In addition to the above, the library contains a well chosen collection of books pertaining to the work of the Department. (See also BUILDINGS—*Hayes Hall*.)

ELECTRICAL ENGINEERING

The Electrical Laboratory affords very good facilities for practical experimental work with dynamo machinery and other electrical apparatus. The dynamo equipment consists of twenty-five machines of various makes and sizes from 40 H. P. down; aggregating over 200 horse power. These include direct and alternating current generators, polyphase motors, arc and incandescent lighting generators, railway and stationary motors and a unipolar dynamo. The latter, with an alternating current generator and a 2-phase motor, were built by the students; it being the policy of the Department to build as much of its apparatus as possible. There are also a number of transformers of different makes, including one for welding,—built at the University. Arc lamps of different styles, a 10-kilowatt-hour storage battery, condensers and resistances, and magnetic testing apparatus also form part of the equipment. The list of measuring instruments is quite complete, and includes a standard Weston voltmeter and eleven other Weston volt and am-meters, also four Kelvin static voltmeters, five dynamo-meters, one watt-meter, three galvanometers and a dozen other am-meters and voltmeters of different makes. A telephone laboratory—with apparatus for comparative tests, a variety of transmitters and receivers, and lines running to another building, has been in use for two years. Photometry is given at present in the Physical Laboratory, where the equipment in this line is excellent. Power for running the dynamo laboratory is supplied by three induction motors from the University Power Plant. This latter is a model 2-phase plant, and the electrical part of it has been for the most part installed by the students of the Department. The repair and maintenance of this plant is done by the students, who receive compensation for the time so spent.

GEOLOGY

The University is able to present unusual advantages for the study of Geology. By an act of the Legislature it has been put in possession of all the collections made by the late Geological Survey, and these collections have been supplemented by valuable additions of fossils and minerals from various sources. The State collection embraces a very complete representation of every geological formation shown in Ohio. In its new and ample quarters the Department offers exceptionally good opportunities for work in the lithological, petrographical and modeling laboratories. (See also MUSEUMS—the *Geological Museum*; and BUILDINGS—*Orton Hall*.)

HORTICULTURE AND FORESTRY

• Among the facilities provided for the illustration of the courses in horticulture, and for practical training in the same, are: (1) a collection of horticultural tools for budding, grafting, pruning, etc.; (2) an orchard, containing well-selected varieties of the apple, pear, cherry, plum and quince; (3) a small vineyard, containing numerous varieties of the grape; (4) a garden of small fruits, containing all the best varieties of the strawberry, raspberry, blackberry, currant and gooseberry; (5) a vegetable garden, with forcing houses, cold frames, experimental plots, conveniences for irrigation, etc; (6) small nursery and forest tree plantations, with practice rows of budding, grafting, pruning and training; (7) ornamental grounds and woodland, planted with a large variety of evergreen and deciduous trees and shrubs; (8) a greenhouse, with a fair collection of native and exotic plants; (9) a collection of preserved natural specimens, and models of fruits, seeds, woods, etc.; (10) a laboratory fairly well equipped with balances, charts and other appliances for study and research. (See also MUSEUMS—*The Botanical Museum*; and BUILDINGS—*Horticultural Hall*.)

MECHANICAL ENGINEERING

The greater portion of Mechanical Hall is devoted to laboratory purposes.

The south laboratory is used for applied mechanics and for gas engineering. Here are located the machines for testing the strength and elasticity of engineering materials, and recording their physical properties automatically and autographically. Oils are tested as illuminants and as lubricants. Belts and pulleys are tested for their slippage, friction and horse-power transmitted. The gas engine plant has three engines, representing gas and gasoline, three methods of ignition, and fly ball and inertia governors. The air is supplied by a fan through a large meter. Temperatures and pressures of air, gas and water are measured. The fresh and burnt gases are analyzed and their heating values determined by a calorimeter. The power is measured at both the indicator and the brake. The laboratory machine shop and tool room are in this room.

The north laboratory is used as a steam engineering and hydraulic laboratory. Four 35-horse-power engines give facilities for testing single or duplex condensing or non-condensing, simple or compound, throttling or automatic cut-off engines, using either a jet or a surface condenser. Pressure and vacuum gauges are calibrated. Indicator springs of five makes are tested either cold or hot. Five kinds of calorimeters determine the moisture in steam before and after passing three different separators. Injectors are tested for lift, quantity, pressure and steam consumption. Steam pumps of six makes, ranging to 800 gallons per minute capacity; two centrifugal and a rotary pump, enable tests of pumps to be made and deliver water at pressures below 150 pounds to two stand-pipes, which in turn supply turbine and cascade, and Pelton, water wheels, and enable experiments to be made on the flow of water through orifices, pipes, valves, etc. Three cisterns, provided with a variety of weirs up to five feet wide, give practice in measuring flowing water. A Venturi meter and a Pitot tube are also used. Ericsson and Rider hot air engines are tested. A Rife hydraulic engine, a Humphryes ram, Gem and Eureka water motors, and a pulsometer, are included in the hydraulic apparatus, all of which are connected and prepared for complete tests.

A complete set of Westinghouse air-brake apparatus, a blower and a ventilating fan, enable experiments to be performed in the flow of air. They are supplemented by tests of the heating and ventilating plants in the buildings of the campus.

In addition to the apparatus and equipment of the power plant of the University the power house at Townshend Hall contains a horizontal, return tubular boiler, two steam engines and an ammonia refrigerating machine, making the facilities on the campus for testing quite complete. Machinery, apparatus and appliances are continually being presented, built or purchased, and the student is given an opportunity to test everything under practical conditions of operation. Besides the laboratory facilities, opportunities frequently arise to test machinery, engines or boilers in the city, and in these tests the students take part.

METALLURGY

The metallurgical laboratory has all the appliances for the most modern methods of technical analysis as practiced in iron and steel laboratories, including gas analysis. A furnace room in the basement is fitted for gold and silver assaying, with improved muffle and crucible furnaces.

The lecture room in metallurgy has arrangements for projecting photographs of machines, mines, and furnaces, for class illustration, and there is a large collection of such views. There is a photographic room with blue-printing facilities, where students learn to make copies of the drawings used in illustrating the lectures.

A collection of minerals and rocks with a large set of rock sections is provided for illustrating the mineralogy, as well as sets of blow-pipe apparatus for the students in determinative mineralogy. (See also BUILDINGS—*Chemical Hall*; and MUSEUMS—*The Geological Museum*.)

MINE ENGINEERING

The Department is equipped with all of the latest improved instruments and apparatus used in mine engineering, surveying and the study of mine ventilation. There is a collection of models of mine machinery and supplies, to which additions are being made which are valuable as illustrations. The draughting room is large, well lighted and provided with a desk for each student, where he is personally taught map making and the platting of actual surface and underground surveys; the making of tracings of drawings and how to make blue-prints. He is also taught proper methods of keeping notes and all records necessary to an efficient engineer's office. The students are given practical experience by making actual surveys of coal mines and in working up their notes complete in all of the necessary details. The students are also taught how to make working drawings, plans, estimates and specifications of mining operations and equipment.

The lecture room has arrangements for projecting photographs of machines, mines and mine equipment, for class illustration, and there is a collection of such views. Also photographic room with blue-printing facilities, where students learn to make copies of the drawings made by themselves and those used in illustrating the lectures.

PHARMACY

The facilities provided for illustration of this work and for practical training are as follows: The apartments assigned to this work occupy the west end of the Chemical Hall, first floor and basement. The lecture room will accommodate sixty students, and is provided with a large lecture table and supplied with gas and water, and other conveniences for experiment. About the walls are arranged cases in which are exhibited rare and costly chemicals, curious drugs, and high-grade pharmaceuticals. Adjoining this room is the preparation room and storeroom, where the supplies and apparatus and material are kept, and where the apparatus for experiment and illustration before classes is prepared. Also adjoining this room is the professor's private laboratory. The main laboratory has desks for thirty-five students, each one provided with gas and water, and sufficient storage space for material and apparatus. The laboratory is furnished with apparatus for distilling, and reclaiming, with mills, balances, drying closets, steam vaporizers, hoods and other special apparatus for pharmaceutical work. Opening into the laboratory is the drug store. This drug store is complete, and is in itself a cabinet of official drugs, and all preparations thereof. It is provided with a prescription desk and all apparatus adapted for training in prescription work. Adjoining the laboratory is the reading room, where are kept the various pharmaceutical journals, the dispensaries, and many books of reference. Also adjoining the main laboratory is the balance room, which is well provided with analytical balances, specific gravity balances and microscope, all of which are intended for higher pharmaceutical work.

In the reading room is also a cabinet of crude drugs, which have been classified and numbered but bear no name. This cabinet is adapted to the study of pharmacognosy.

In addition to the foregoing equipment, the Department is possessed of an extensive range of apparatus, by means of which any branch of work in pharmacy can be successfully pursued. The Department is complete in all its details, and affords unexcelled opportunity for the study of pharmacy. (See also BUILDINGS—*Chemical Hall*.)

PHYSICS

The Department has an excellent equipment of apparatus, to which additions are constantly being made. The apparatus includes a large collection of pieces for illustration of the general lecture room work, but is principally chosen for accurate measurement in the laboratory. A set of standards of length, capacity and mass, sent under the act of Congress supplying such sets to the several agricultural colleges, is in the possession of the Department. The pieces are copies of the United States standards made by the Coast Survey at Washington.

Among the principal pieces of apparatus are a dividing machine by Fauth & Co.; chronometers by Parkinson & Frodsham and by Negus, the latter a break-circuit; a chronograph by Fauth & Co.; a Hipp's chronoscope; cathetometers by Salleron and by the Geneva Society, the latter an exceptionally fine instrument; Regnault's apparatus for vapor tension, for expansion of gases and for specific heat; Melloni-Tyndall apparatus for radiant heat; standard thermometers by Baudin and others; Rutherford and Rowland, diffraction gratings; Rowland's spectrum photographs; spectroscopes by Brashear, Browning, Apps and others; Salleron's complete apparatus for projections in polarized light; lanterns for projections by the lime light and the arc light; a variety of sound apparatus from Koenig; portable and quadrant electrometers; Kelvin galvanometers of high and low resistance; Weidemann, Kohlrausch and other galvanometers; standard resistance coils, with Cavendish laboratory certificate; several sets of resistance coils and bridges; a Key magnetometer; Kelvin standard balances; Weston ammeters and voltmeters; standards of self-induction; standard battery cells; photometric standards and photometers; X-ray apparatus, etc.

Under the laws of Ohio, the professor of physics is *ex officio* State Sealer of Weights and Measures, and all of the standard weights, measures and balances received from the United States government are in the rooms of the Department.

PHYSIOLOGY

The facilities provided for the study of anatomy, bacteriology, histology and physiology are excellent. The laboratory is supplied with skeletons, papier-mache manikin, and many models, including models of the eye, ear, larynx, etc. The apparatus of the Department for work in bacteriology and physiology is of the best and most approved construction, and is adapted to the accurate investigation of bacterial forms, as well as to the thorough performance of the fundamental physiological experiments. Myographs, spectroscopes, microscopes and the necessary chemical outfit are also provided. For work in histology the equipment includes twenty-four individual tables for student experiments, each table being supplied with a good microscope, microscopical accessories, microscopical reagents; and for advanced work, the needed apparatus for instruction in the various methods of hardening, staining, imbedding, section-cutting and injection. The laboratory also has excellent microtomes, imbedding baths and other essentials of a histological outfit. The equipment of the laboratory makes it possible to offer a large range of work for the choice of students in advanced courses. (See also BUILDINGS—*Biological Hall*.)

SHOPWORK

The shops, which occupy the north wing of Hayes Hall, afford excellent facilities for instruction in both the practical details and the underlying principles of carpentry, pattern-making, forging, moulding, foundry work and machine work.

The carpenter and pattern shop is equipped with twenty-five benches with complete sets of carpenter tools for each and a large number of special tools for general use, twenty-three pattern-makers' turning lathes with cupboards containing

the necessary turning and pattern-making tools under each, a pony planer, a buzz-planer, a circular rip and cross-cut saw, a scroll saw, a trimmer and a power grindstone.

The forge shop is equipped with twenty stationary forges with anvils and tools for each, a heating forge, a portable hand forge, a foot-power hammer, a blacksmith's drill and a punch, shear and bar cutter. The blast for the forges is furnished through underground piping by a 45" Buffalo pressure blower, and the smoke is removed by a 55" Buffalo exhaust fan overhead. Both of these fans are driven by a 15 horse-power electric motor.

The foundry is equipped with a 24" Calliau cupola, the blast for which is furnished by a 30" Buffalo blower; two brass furnaces, one 16 inches in diameter and the other 20 inches in diameter; a core oven, benches for iron and brass moulding, core making and cleaning of castings, a space for floor moulding 30 feet by 40 feet, besides all the necessary moulding tools, flasks, crucibles, ladles, tongs, etc.

The machine shop is driven by a 30 horse power electric motor from above, and is equipped with the following tools: Twenty-eight benches for vise work with complete sets of tools, eight speed lathes, sixteen engine lathes, two planers, two shapers, a milling machine, an upright drill, a sensitive drill, grinding machines for both plane and cylindrical surfaces, tool grinders, emery wheels, etc. This machinery is furnished with all the necessary tools, and the tool room is equipped with full sets of drills, taps, dies, milling cutters, standard plugs, gauges, threads, etc., micrometers and a great variety of special tools. (See also BUILDINGS—*Hayes Hall*.)

VETERINARY MEDICINE

The Veterinary Hospital affords excellent facilities for the treatment and care of animal patients, and also gives the students the opportunity to become practically familiar with the diseases to which our domesticated animals are subject. It contains box stalls, stalls for cold water applications, a large and well lighted operating hall and a special ward for dogs. The front part of the Hospital contains a lecture room, a museum of anatomical and pathological preparations, a drug dispensary and an office. In the museum are skeletons of the horse and ox, a complete manikin of the horse, papier-mache models of various anatomical parts, pathological specimens preserved in alcohol, etc.

In the library are choice collections of works in veterinary medicine and allied sciences and also copies of the leading veterinary periodicals.

The College is well equipped for surgical work. Instruments of the latest and most approved makes are kept in the instrument room for use in operations.

In the daily clinics not only are horses and dogs represented, but also the meat-producing animals from the farm, near the College.

The bacteriological laboratory in the biological department is supplied with apparatus of the most modern and improved construction, the microscopic appliances being adapted to the most accurate work in bacteriology. (See also BUILDINGS—*The Veterinary Hospital, Biological Hall*.)

ZOOLOGY AND ENTOMOLOGY

The outfit of the Department is ample, consisting of general zoological collections, an entomological collection, a series of skeletons, alcoholic specimens, and all needed instruments. (See also MUSEUMS—*The Zoological Museum, The Lake Laboratory, Biological Hall*.)

THE LAKE LABORATORY

There has been established at Sandusky a summer laboratory for the purpose of investigations of biological problems in the great lakes. It is located at the present site of the State Fish Hatchery in the east bay of Sandusky. The site

is chosen with especial reference to its convenience, the sheltered waters of the bay, the proximity of the fish packing establishments, and the ready access to the islands and open lake. The laboratory affords a rare opportunity for instructors and students to spend the summer vacation at practical biology in a most agreeable and profitable way. The facilities offered are free to students of any branch of biology. The chief work for the first season related to the food and enemies of the fishes of the lake.

THE MUSEUMS

THE GEOLOGICAL MUSEUM of the University has been collected and arranged with reference to instruction rather than to display. The basis of it is a large and comprehensive collection of the rocks, fossils and economic minerals of Ohio. The collection embraces the following named series:

(a.) An excellent representation of the leading divisions of the geological scale of the State, so far as it can be illustrated by rock specimens. The specimens represent the leading phases of each formation, and in many cases carry the characteristic fossils of the horizons from which they are derived.

(b.) A collection of the animal and vegetable fossils of the rocks of Ohio. This series includes a large majority of the described fossils of our formation, and in the number are many type specimens. While all the ages of our geological history are well represented, the collection of the Upper Silurian and Devonian animal fossils is particularly rich and complete. A remarkably fine series of coal plants is also included in the museum. The list of fossils has been greatly extended in the number of species and individuals by the recent purchase of the collection of Mr. Henry Moores, of Columbus.

(c.) The economic minerals of the State are also shown to excellent advantage in the museum. The coals, petroleums, iron ores, clay and building stones produced in Ohio are represented in large collections. Many of the specimens upon which chemical examinations or physical tests have been based in the work of the geological survey of the State are included here.

(d.) Petrographical collections: These collections were selected with a view to their use in petrographical instruction, and embrace the Hawes collection, the Krantz collection and the Rosenbusch complete series of typical rock specimens from important centers abroad. These hand specimens are supplemented by two series of thin sections, including Voigt and Hochgesang's collections of typical rocks and of the petrographically important minerals.

In addition to the collections above described, the museum contains a great deal of valuable material in the line of general geology and mineralogy. Among other things it includes several valuable suites of ores and many fine mineral specimens.

There also belong to the museum a number of geological casts, models and maps. In this series are included a relief map of the State of Ohio, and also the models of the basins of the Atlantic ocean and Caribbean sea, prepared under the supervision of the United States Coast and Geodetic Survey.

The catalogue of the museum contains more than 10,000 entries; but as only one number is as a rule given to a fossil or a mineral species, the individual specimens make an aggregate list of many thousands in addition to the catalogue list, and probably double this list.

The skeleton of a mastodon, one of the extinct elephants of Ohio, has recently been presented to the museum by N. S. Conway, of Catawba, O., on whose farm it was found. It has been mounted by Prof. H. A. Ward, of Rochester, N. Y., and proves to be one of the largest in the country.

The museum also has a mounted skeleton of *Megalonyx Jeffersonii*, one of the great ground sloths. This specimen has the distinction of being the first and thus far the only mounted skeleton of this animal in the world. The bones were discovered by Abraham Drushell and others in a swamp in Berlin township, in Holmes

county, O., in 1890. They were mounted in Ward's Natural Science Establishment, Rochester, N. Y. The entire outlay involved in the purchase of the bones and in mounting them was borne by Mr. Emerson McMillin, of New York.

THE ZOOLOGICAL MUSEUM is located on the ground floor of the wing of Biological Hall. The foundations of a zoological museum have been laid and the work has been begun on a generous plan. Every effort is being made to secure and preserve excellent specimens in all groups of animals. Not only the adult animals are preserved, but the preparatory stages, their work and architecture; in fact, all that can illustrate the life-history and habits.

Among its features and recent additions may be mentioned the Wheaton collection of the birds of Ohio, numbering about 1,000 skins. These have been arranged in Harvard boxes, and may be consulted at any time by those interested.

Also a recently purchased collection of birds about 1,400 in number representing quite fully the fauna of North America.

About 3,500 species of molluscan shells have recently become the property of the museum. These will soon be displayed in suitable cases.

Among the mammals added are two fine specimens of moose, an animal fast disappearing from North America, and a very fine specimen of Hippopotamus donated by Sells' Bros. Our reptiles, fishes and insects are being accumulated as rapidly as possible. There is, besides, a good supply of skeletons, crania and alcoholic material for the laboratory courses in comparative anatomy and general zoology.

Much attention has been given of late to the collection of insects; in some groups it is now abreast of any; especial efforts are being made to increase the exhibit of economic or destructive insects. The fine collection of *Odenata* made by Prof. Kellicott has lately been purchased.

THE BOTANICAL MUSEUM occupies the second floor of Botanical Hall. It contains the University herbariums, both general and state, also Professor Kellerman's private herbarium of over 20,000 specimens deposited for use in the Botanical Department; a complete collection of the native woods of Ohio; a collection of the seeds and fruits of plants; a collection of native medicinal plants; a general collection of vegetable products, including seeds, textile fibers, coloring substances, etc., illustrating economic or applied botany.

THE AGRICULTURAL MUSEUM. For a description of this museum, see BUILDINGS—Townshend Hall.

THE ANATOMICAL AND PATHOLOGICAL MUSEUM. For a description of this museum, see Laboratories and Equipment, Veterinary Medicine.

THE MUSEUM OF CLAY-WORKING AND CERAMICS is now in process of formation. Some excellent specimens of ceramic products have already been collected and efforts are being made to increase the collection.

* ARCHAEOLOGIC COLLECTION. Orton Hall now contains the second best archaeological exhibit in the Ohio Valley, the total number of specimens owned by the Ohio State University, the Ohio State Historical and Archaeological Society and by private individuals, amounting to 46,200. Although the Museum is but three years old, it has shown a remarkable growth.

Field work has been carried on in the various parts of the State during the summers of 1894, '95 and '96, and as a result the contents of more than eighty mounds, graves and village sites are now on exhibition. The chief exhibits, illustrating the life of ancient tribes are from Fort Ancient in Warren county, from the mound graves of the lower Scioto and from the Muskingum Valley. It is considered that in Ross county aboriginal culture reaches its highest development in the whole Ohio Valley. This fact is well attested by the presence of numerous copper objects, effigy pipes, fine ornaments and ceremonials, pottery, delicate work in polished stone and flint implements, etc.

The collection from the valley of Brush Creek and along the Ohio itself, and from the hill regions of Ohio, show a much lower grade of culture. Careful comparison of the work of man from these localities is exceedingly interesting.

There is an exhibit from Flint Ridge, illustrating the manufacture of arrow and spear heads. The Museum contains nearly 150 specimens of pottery from Missouri and Arkansas, many of which are effigies of animal, bird and human form.

The founders of the Archæologic Museum are arousing public interest in the preservation and study of Ohio antiquities; and by means of exchanges, lectures and personal solicitation, the growth of the collection is considerable.

LIBRARIES

THE UNIVERSITY LIBRARY

The University Library is located in the east end of Orton Hall. The system of departmental libraries prevails to a limited extent, small collections of books specially needed in connection with laboratory and class room work being deposited in several departments.

During term time the Library is open six days in the week, legal holidays being excepted. From Monday until Friday the hours are from 7:30 A. M. until 9:30 P. M.; on Saturday from 8 A. M. until 4 P. M.

The management of the Library is vested in a Library Council which is composed of the President, the Librarian and the Deans of the six colleges.

STATE LIBRARIES

Students are privileged in being near the two State libraries.

The Ohio State Library numbers about 70,000 volumes and is a circulating one for all the citizens of Ohio. It occupies a room in the State House.

The State Law Library, also in the State House, is the largest and most complete law library in the State. It contains complete sets of the English, Scotch, Irish, Canadian, United States and State reports, statutes and digests. The important legal periodicals are on file.

CITY LIBRARIES

The students of the University, as residents of Columbus, have access to the City Library and the Public School Library, under the usual regulations. The City Library numbers 28,000 volumes. It has specially pleasant reading and reference rooms. The Public School Library numbers 35,000 volumes, and is a well selected collection of books. Students will find both libraries valuable in supplementing the University Library.

SPECIAL LIBRARY IN ECONOMICS

The University possesses a special library in Economics consisting of several hundred volumes and pamphlets. Over thirty financial, commercial and trade journals are received and filed regularly. The business men of Columbus have contributed over \$1,200 for the maintenance of this commercial library.

AIDS TO MORAL AND RELIGIOUS CULTURE

Chapel services are held daily (except Saturday and Sunday) at the University, at which the attendance of all instructors and students is expected. The services consist of singing, reading the scriptures, and prayer.

One of the most commendable organizations in the University is a branch of the International Young Men's Christian Association, organized in 1883. It has a large membership and steadily grows in influence. Services are held weekly. New

students are made cordially welcome, and young church members will here enjoy Christian influences and fellowship in college life. A University Circle of the International Order of the King's Daughters and Sons holds its meeting once a week, and includes in its membership a majority of the women attending the University. A club for the study and practice of philanthropy has recently been organized by the King's Daughters.

An effort is being made to complete, by subscription, the fund which was begun two years ago by students, alumni and professors, for the erection of a building to accommodate the student organizations of the University.

LITERARY AND OTHER SOCIETIES

The Alcyone Literary Society, open to young men, was founded in 1874; the Horton Literary Society, open to young men, was founded in 1875; the Athenæan Literary Society, open to young men, was founded in the winter of 1896-'97. The Browning Literary Society, founded in 1883, and the Philomathean Literary Society, founded in 1894, are open to young women. These societies have commodious and well furnished apartments in University Hall. They meet weekly, and their work, offering to the student a very desirable training in composition, public speaking, and parliamentary order, is a valuable adjunct to collegiate education.

The Biological Club is an organization of professors and students for mutual assistance and improvement in the line of natural science. Its meetings are regularly held every two weeks, at which papers are read, notes of observation and research presented, and current biological literature discussed. The Chemical Association is a similar organization in the line of chemistry.

The Political Science Association is an organization of instructors and students in political science and history for the consideration of questions in those fields. At the regular bi-weekly meetings papers are read, researches reported, and current questions and publications in political science, considered and discussed.

The Engineering Society is a similar organization of students and instructors, holding meetings bi-weekly, for the consideration of questions in the various branches of engineering.

The Townshend Society of the College of Agriculture meets weekly for the discussion of current topics in agriculture and related subjects.

The Germania Society was founded in 1895. Only students that have had elementary ("first year") German are eligible to membership.

The aim of this society is to give to its members additional opportunities for the study of German Literature and for the practical use of the German language. Nothing but German is spoken at the meetings, which are held every other week throughout the University year. Students of German find it very advantageous to be present at those meetings and to take an active part in them.

The Ethical Society, open to all students and to members of the Faculty, was organized in the winter of 1896-'97, and meets on the afternoon of each alternate Sunday.

The Philosophical Society, organized under the auspices of the departments of Philosophy and Pedagogy, in the winter of 1896-'97, is open to the students of the two departments named, and to those interested in Philosophy.

The Organic Evolution Club was organized in the winter of 1896-'97 by those students and members of the Faculty especially interested in the study of Evolution.

The O. S. U. Dramatic Club was organized in 1893. Its object is to present each year to the University world one of the standard legitimate dramas. Its membership is confined to University circles.

The musical organizations of the University are: The O. S. U. Glee Club, composed of sixteen members; the O. S. U. Octette, a mandolin orchestra of eight pieces; the O. S. U. Mandolin and Guitar Club, and the Cadet Band.

The Ornithological Club encourages observation and research in the study of birds and their habits, especially of our native species. The Wheaton collections in the possession of the University forms a basis of study. The programs consist of papers and discussions and reports of observation and personal work. Anyone interested in birds is eligible to membership and visitors are always welcome. The Club meets on the second and fourth Monday evenings of each month.

The O. S. U. Sketch Club was organized for the purpose of promoting art interest among the students of the University. Its membership is confined to University circles. The active members meet once a week for practical work; the associate members meet once a month in open session for literary programs bearing upon art, history and criticism.

The William F. Hunter Society, in the College of Law, meets for moot-court practice and quiz-work every two weeks.

MILITARY SCIENCE AND TACTICS

Under the law of Congress establishing the University, it is required that instruction shall be given in military science and tactics. In accordance with this provision an officer of the regular army has been detailed to take charge of the Department of Military Science and Tactics; and the Trustees have directed that all male students, except those in the Law College, and such others as may be specially excused, shall render two years of cadet service as a condition of graduation. A uniform has been prescribed with which each member is required to provide himself; and fifty minutes a day are devoted to drill, except on those days when instruction in tactics and art of war is given.

The course of instruction is both practical and theoretical. It is given by means of a systematic drill, supplemented by lectures and recitations, and is so arranged as to occupy five hours per week throughout the year. For purposes of drill, all students enrolled in the Department are organized in a battalion, the officers of which are selected from those students who have shown special proficiency in their University work and the work of the Department. Commissioned officers and non-commissioned officers receive certificates of satisfactory service, issued by the University. A cadet band has been organized in connection with this Department, and is supplied with instruments belonging to the University and to the cadets.

The practical course in infantry embraces all the movements prescribed by the drill regulations of the U. S. Army applicable to a battalion. Instruction in artillery embraces such portions of the United States drill regulations as pertain to the formation of detachments, manual of the piece, mechanical maneuvers and aiming drill. Instruction also includes duties of sentinels, the various ceremonies performed by troops, and military signaling. The theoretical instruction includes a systematic and progressive course in drill regulations of the U. S. Army, the organization and administration of the U. S. Army and the elementary principles governing in the art of war.

Competitive drills are held yearly for two medals; one, the first prize, of gold, presented to the University by the M. C. Lilley & Co., of Columbus, Ohio; the other, the second prize, of silver, presented by Lieut. Wilson, when commandant. These medals remain the property of the University, the winner wearing them until the next competition. The "President's Prize" consists of an officer's sword, given to the captain of the company having the best record for attendance for the year.

The equipments of the Department consists of three hundred Springfield cadet rifles and sets of infantry equipment, twenty officers' swords and belts, the necessary equipment for instruction in signaling, and a few instruments for the band.

The U. S. Ordnance Department furnishes an annual allowance of one thousand rounds of ball and one thousand rounds of blank cartridges for cadet rifles.

PHYSICAL TRAINING

Competent instruction in hygiene and general sanitation is given by the Director of the Gymnasium, who has entire charge of the physical training and well-being of all students. Supplementing this work, the practical instruction in military tactics is found to be a most valuable aid. In addition to this, the University grounds afford excellent opportunities for general athletics, and the students support well organized clubs in base ball, foot ball and lawn tennis. These and other sports are participated in by large numbers, and friendly contests are occasionally held with other colleges. Besides the special clubs named above, the students have an athletic association which holds an annual "Field Day," in which prizes are given to the victors in the various contests usual on such occasions.

OHIO FORESTRY BUREAU

This Bureau has been established and located at the University by the Legislature for the purpose of inquiring into the best means of preserving and utilizing the forests of the State.

TERMS AND VACATIONS

The first term of each University year begins on Wednesday following the tenth day of September, and closes on the Wednesday preceding Christmas. The second term begins on the Wednesday following the first day of January, and closes on the Friday following the twenty-first day of March. The third term begins on the Monday following the close of the second term, and closes on Commencement day, which is the Wednesday following the eleventh day of June.

In the college of Arts, Philosophy and Science and in the college of Law the first semester begins on the Wednesday following the tenth day of September and closes on the Friday preceding the second semester. The second semester begins on the Monday of the eighteenth week preceding Commencement Week and closes on Commencement Day.

Regular college exercises are omitted on Thanksgiving Day and the day following, on the twenty-second day of February, and on Memorial Day.

FEES

THE COLLEGES

INCIDENTAL FEE.—A charge of fifteen dollars a year is made against all students, under the head of incidental expense. In the case of former students, if this fee is not paid until the second day of the term one dollar will be added, and for each succeeding day of delinquency fifty cents will be added.

LABORATORY FEES.—Students in the laboratories and shops are required to pay fees to cover, in part, the cost of the material consumed, and the deterioration of the expensive instruments used by them. The fees charged per term in the laboratories mentioned below are as follows:

Agriculture, 6.....	\$10 00
" 15.....	5 00
Anatomy and Physiology, 53, 54, 55, 56, 59, 60	7 50
" " Vet. Medicine, 4.....	5 00
Botany, 4, 6, 7, 8.....	2 00
" 53, 55, 57, 58, 59, 60, 64.....	3 00
" 56 (half semester).....	1 50
Ceramics, 1, 2, 3, 7, 8.....	1 50
" 9, 10, 11, 12.....	5 00
Domestic Science.....	5 00
Drawing, 7.....	2 00
Elec. Engineering, 4, 5, 4 or 5 hrs., \$7.00; 3 hrs. or less.....	5 00

Gymnasium	1 00
Metallurgy, 3, 5, 6.....	1 50
Mechanical Engineering, 12, 13, 14, 15, 16, 17.....	5 00
Pharmacy, 7, 8, 9, 10, 11, 15, 17, 18.....	1 50
" 51, 52.....	2 25
Physics, 5, 6, 7, 9, 3 hrs., \$5.00; over 3 hrs.....	7 00
" 55, 56, 57, 58, 60, 3 hrs., \$7.50; over 3 hrs.....	10 50
Shop Work, 4 hrs. or less.....	5 00
" 5 hrs. or more.....	7 00
Zoology and Entomology, 53, 54, 55, 56, 61, 62.....	7 50
" " 57, 58, 59, 60.....	4 50
" " (Agriculture), 4, 7.....	1 00

The fees of the College of Law are \$30 per semester, including the usual incidental fee.

In the laboratories of the Department of Chemistry and Agricultural Chemistry, each student is required at the beginning of each term to pay a fixed charge of one dollar and fifty cents for gas and water (\$2.25 each semester). He is also required to buy his own supplies, as he needs them, at the general storeroom in Chemical Hall, where laboratory supplies are sold to students at first cost to the University.

All term dues must be paid at the opening of each term as a condition of admission to classes.

GRADUATION FEE.—A fee of five dollars, to cover expenses of graduation, diplomas, etc., is required of each person receiving one of the ordinary degrees from the University, and this fee must be paid before the degree is conferred. A like fee of ten dollars is charged to each person receiving one of the higher graduate degrees.

FREE SCHOLARSHIP IN AGRICULTURE AND DOMESTIC SCIENCE, AND IN VETERINARY MEDICINE.—A free scholarship, good for the Short Course, in Agriculture or for the First year of the four-year Course in Agriculture, is granted to one student annually from each county in Ohio. Each scholarship is valid two years from its grant, and covers the incidental fee and all laboratory fees, but the person appointed to receive its benefits is subject to all the other conditions prescribed for admission to the Course. If in any county there is no applicant for the free scholarship in Agriculture, then a free scholarship, good for two years in the College of Veterinary Medicine, may be granted, subject to the same conditions as are prescribed for the free scholarship in Agriculture. The appointments are made by the county boards of agriculture, and are not transferable by the appointees. To learn whether the scholarship of a given county for the current year has been granted, inquiries should be addressed to the Secretary or President of the County Agricultural Society. For further information concerning these scholarships, inquiries should be addressed to the Executive office of the University, or to the Professor of Agriculture.

THE COLLEGE OF LAW

INCIDENTAL FEE.—An incidental fee of fifteen dollars per year is charged to regular undergraduate students.

Upon payment of the incidental fee, law students will be admitted to all the privileges of all the other Colleges of the University, upon the same terms as to admission, discipline, character of studies selected, etc., as other students in the University.

TUITION FEE.—In addition to the incidental fee named above, a tuition fee of twenty-two dollars and fifty cents per semester is charged to regular undergraduate students.

GRADUATE FEE.—A graduate fee of fifteen dollars per semester, payable in advance, is charged to all who take the full graduate work.

DIPLOMA FEE.—A fee of five dollars (to cover the expenses of graduation, diplomas, etc.) is charged to all who take the degree of Bachelor of Laws, and a fee of ten dollars is charged to those taking the degree of Master of Laws. These fees must be paid before the degrees are conferred.

Special students are required to arrange their fees satisfactorily with the Dean or Secretary before being admitted.

OTHER EXPENSES

There are two dormitories on the University grounds for the use of students. Each occupant is charged by the University a rent of a dollar and a half a term.

The South Dormitory affords unfurnished rooms to such students as desire to board themselves, and thus to reduce their expenses to a minimum. The expense of living in this way is about two dollars per week. Applications for rooms should be made to the President of the University.

The North Dormitory will accommodate more than sixty students. Board, furnished rooms, fuel, light and washing are, at present prices, supplied for about three dollars and fifty cents a week. Students will be admitted on special recommendation to the President of the University.

Boarding clubs are also formed in the neighborhood of the University. Furnished rooms are rented at seventy-five cents to one dollar a week for each student, and the cost of table board is two dollars to three dollars a week.

Board with furnished rooms can be obtained in private families, within convenient distances of the University, at rates varying from three and a half dollars to five dollars a week. The ruling rate may be taken as four dollars.

The uniform with which the members of the battalion are required to provide themselves costs (without overcoat) about fourteen dollars. It is quiet in pattern, and is designed to be worn daily in place of civilian dress.

The expenses of a student in the University for a year may be estimated as follows, excluding clothing (except uniform) and traveling expenses:

	Low.	Average.	High.
Incidental fees.....	\$15 00	\$15 00	\$15 00
Laboratory fees.....	15 00	20 00	54 00
Books and stationery.....	15 00	25 00	40 00
Room.....	4 50	37 00	75 00
Furniture.....	10 00	.....	.....
Board.....	70 00	110 00	150 00
Uniform	14 00	14 00	14 00
	<u>\$143 50</u>	<u>\$221 00</u>	<u>\$348 00</u>

The second and third estimates for room include light, fuel and care. The third estimate is for a room occupied by a single student. The requirements for laboratory fees and books depend upon the course of study pursued.

SELF-SUPPORT

There is a large amount of work upon the University farm which is assigned to students, preference being given to those who are studying Agriculture. *But the University cannot promise work to all applicants.* Many students find work in private families, in offices, and in various occupations, by means of which they defray at least a portion of their expenses. A portion of ability and energy, who is master of a trade, or who can do good work of any kind, can generally find remunerative employment. It has seldom been known that any student of ordinary energy and industry was obliged to leave the University because of a lack of money for necessary expenses, *after having been say sixty days on the ground*—or long enough to inform himself as to the opportunities for securing employment. An employment bureau is maintained at the University, where the names of those seeking work and of those desiring workers are recorded.

For further information, address "Executive Office, State University, Columbus, Ohio."

THE COLLEGES

The Colleges

ADMISSION

The University is open on equal terms to both sexes.

The entrance examinations for 1899 will be held on Monday and Tuesday, June 12 and 13, and on Monday and Tuesday, September 11 and 12. A part of the examinations may be taken in June and the remainder in September. Conditions incurred at the June examinations must be removed at the September examinations.

Applicants for admission to the Colleges of Agriculture, of Arts, Philosophy and Science, or of Pharmacy, must be at least sixteen years of age; for admission to the College of Engineering or of Veterinary Medicine must be at least seventeen years of age; for admission to the College of Law must be at least eighteen years of age. Each must be provided with credentials of scholarship from his last instructor or from the last institution with which he has been connected, and with a certificate of good moral character.

There are three modes of admission to the University:

1. Certificates of the preparatory departments of Colleges of approved standing and of Normal schools in Ohio are accepted, if found satisfactory, in lieu of examination for preparatory studies, under the following conditions:

Each certificate must contain a detailed statement of the studies pursued, the text books used, the amount of work done in each study, the amount of time devoted to it, the date of the examination, and the applicant's rank or standing in it. A copy of the course of study should accompany the certificate; and both should be sent to the University not later than the first of September. *The University cannot promise this recognition to those certificates presented during entrance week*

Blank certificates will be furnished on application.

Applicants for admission who come from other Colleges or Universities are required to bring certificates of honorable dismission.

Teachers' certificates (in force) will be accepted at their face value.

2. From time to time the University approves the courses of study in certain High Schools of the State: and the graduates of these High Schools are admitted on presentation of cards issued to them at their graduation by the University through the Principals of the High Schools.

3. All other applicants are subject to examination on the groups of study mentioned below under the headings of those Colleges and Courses in the University which they desire to enter.

Full equivalents for the text-books named will be accepted.

ADMISSION TO SPECIAL STUDIES

Students who desire to pursue special lines of work in any of the Colleges of the University, and do not desire to become candidates for degrees, will be admitted on the following conditions:

1. The regular entrance requirements must be satisfied.

But applicants who are not less than twenty-one years of age (eighteen years, in the College of Engineering), after obtaining credit for elementary or "grade"

work, and for such other subjects as may be necessary to qualify them for the classes that they wish to enter, may, on the presentation of satisfactory reasons, be admitted by the proper Faculty to any class in the University; provided, that if any student who has been admitted on these conditions afterwards becomes a candidate for a degree, he shall take the omitted entrance examinations at least twelve months before the degree is conferred.

2. On entering the University, students desiring to pursue special work are required to lay before the proper Faculty, for approval or modification, a written statement of the end they have in view, the studies proposed for the attainment of that end, and the probable period of attendance. Such students will be held as strictly to their accepted schemes of work as are the regular undergraduates to their courses of study.

3. *Permission to enter as special undergraduates will be refused to all who fail to give satisfactory evidence of definiteness of purpose, and will be withdrawn whenever the conditions on which it was granted cease to exist.*

ADMISSION TO ADVANCED STANDING

1. Applicants who do not come from some other University or College must first obtain admission to some College of the University in the manner already described. They will then be examined on the undergraduate studies for which they ask credits.

2. Applicants who come from the collegiate department of an approved College, and who bring explicit and official certificates describing their course of study and scholarship, and also certificates of honorable dismissal, will be admitted without examination except such as may be necessary to determine what credit they are to receive here for work done in the College from which they come.

ADMISSION TO GRADUATE WORK

Graduates of this or other institutions may, on application to the Faculty, enter the University and pursue such lines of work as may be arranged or approved by the appropriate collegiate committee. Such graduate students are subject to all the ordinary regulations (as to fees, attendance, etc.), prescribed for undergraduates.

1. **MASTERS DEGREES.**—Masters degrees are conferred upon graduates in Arts, Philosophy, Science, Agriculture, Horticulture and Forestry, and Pharmacy at the end of not less than one year's residence, which shall be wholly devoted to the completion of an approved course of study in the University. Each is required in addition to present an acceptable thesis upon some subject connected with his course of study. Masters degrees are conferred without residence *upon graduates of this institution*, upon the same conditions of study and thesis as above; but these degrees will not be so conferred within less than three years after graduation. *The incidental fee of five dollars a term is due from candidates studying in absentia as from all other students, and should be forwarded to the Bursar of the University at the beginning of each term.*

2. **DOCTORS DEGREES.**—The degree of Doctor of Philosophy is conferred upon Bachelors of Arts, Bachelors of Philosophy, and Bachelors of Science at the end of not less than three years' residence and study, during the latter two years of which the candidate is required to pursue and complete an approved Course of study in at least two distinct departments of the University. He is, in addition, required to present an acceptable thesis, embodying original research.

The degree of Doctor of Science is conferred upon Bachelors of Science and graduates in the full technical Courses, at the end of a course of special, advanced study in science, upon the same conditions as to residence, time, and other requirements as are established for the degree of Doctor of Philosophy.

FELLOWSHIPS

To encourage graduates of this University, and of other similar and approved institutions in this state, to continue their work and to complete the courses necessary to second (and other) degrees, the University authorities have established fellowships in several departments. These demand about one-half of the time of the fellow for laboratory instruction or other similar assistance—as far as possible, along the line of his graduate study. The remainder of his time is given to graduate work. The fellowships pay from \$250 to \$300 for the University year.

Following are the fellowships for the academic year 1899-1900 as far as at present determined:

Anatomy and Physiology, Botany, Chemistry (two), American History and Political Science, Industrial Arts, Mathematics (two), Mechanical Engineering, Veterinary Medicine.

In addition to these, Mr. Emerson McMillin has established two fellowships: one in Astronomy, \$300 for the academic year; and one in Economics, \$250 for the academic year. No service is required in these fellowships, and fellows are expected to give their entire time to their graduate work.

Correspondence should be directed to the Executive Office of the University.

PRIZES

Through the generosity of Hon. William J. Bryan an annual prize of fifteen dollars is offered for the best essay on the principles underlying the form of government of the United States. Competition for this prize is open to all students of the University.

The Edward Thompson Company offer annually to the student writing the best essay on a legal theme selected by the Faculty of the College of Law, the second edition of the English and American Encyclopedia of Law: which includes about thirty volumes.

Other prizes are offered in special departments, for which see department circulars or the heads of the departments.

COLLEGE OF AGRICULTURE AND DOMESTIC SCIENCE

FOR ADMISSION¹

The following are the requirements:

1. *Arithmetic, Descriptive and Physical Geography, English Grammar, and United States History.*

2. *English, (a)*—Composition and Rhetoric. Each applicant will be tested as to his ability to write clear and correct English. The test will be the writing of two essays of about two hundred words each. The first essay will be upon a subject drawn from the candidate's observation or experience; as "A description of my native town," "The most remarkable person I ever met," "My reasons for seeking a University education." The second essay will be upon a subject drawn from the list of classics which will be furnished on application.

The proper preparation for this requirement is sustained and regular practice in writing. The pupil should be afforded weekly practice in preparing written exercises—paragraphs, outlines, themes, reproductions and abstracts; and his written work should be corrected by the teacher and revised and rewritten by himself. Scott and Denney's *Composition—Rhetoric* is recommended as a guide for this work.

The pupil should be familiarized with those principles of Rhetoric which are most likely to help him in his composition work; such as the principles of sentential structure, outlining, paragraphing, and choice of words. The study of specimens of bad English is not recommended; the time usually devoted to this may be better spent in memorizing and reciting notable passages of prose and poetry selected from works read entire by the class. Exercises in speaking from a topical outline previously prepared by the class are recommended for drill in expression and choice of words.

The subjects for the weekly written exercises should be so distributed that the pupil will have practice in the four types—description, narration, exposition and argumentation. Some of these subjects should be taken from English and American classics, prescribed for parallel or subsidiary outside reading by the class; but fully one-half of the subjects upon which the pupil writes during his preparatory course should be drawn from his own observation and experience, especially subjects in description and narration.

(b) *English Classics*—Questions will be set for the purpose of testing the applicant's knowledge of the subject-matter, form and substance, of the following books; with the plot, purpose, literary style and peculiarities, incidents, and characters of which the applicant should make himself thoroughly familiar.

1899. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Lowell's *The Vision of Sir Launfal*; Hawthorne's *The House of Seven Gables*.

1900. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, IV, XXII, and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Macaulay's *Essay on Milton*; Burke's *Conciliation with the Colonies*.

1901. *Macbeth*; Burke's *Speech on Conciliation with the Colonies*; Macaulay's *Essays on Milton and Addison*; Milton's *Minor Poems* (*Comus, Lycidas, L'Allegro, Il Penseroso*); Scott's *Ivanhoe*; Goldsmith's *The Vicar of Wakefield*; Tennyson's *Princess*; Coleridge's *The Ancient Mariner*; Lowell's *The Vision of Sir Launfal*.

These or equivalent texts will require minute and critical study in class during at least one school year. The test here is the pupil's ability to analyze plot and character; to explain words, phrases and figures; to reproduce thought, to point out characteristics of style. Systematic

¹ An applicant for admission who may be somewhat in arrears in any given subject, will find opportunity to make up his work in the Columbus High Schools, which are fully accredited by the University.

class-room study of the texts themselves is the only adequate preparation. Literary history, literary biography and the comments of professional critics will not serve the purpose. The work in class should be intensive and disciplinary; there the distinction between the reading of literature and the study of classics should be sharply defined. Outside reading of other works preferably by the same authors, is recommended, and should be prescribed as the basis of part of the composition work; but this general reading and composition work should not be regarded as an adequate substitute for the minute study of the few classics prescribed above, and will not be accepted as preparation for this part of the English requirement.

3. *Algebra*—Venable's Easy Algebra, complete.

4. *Botany*—Kellerman's Elementary Botany and Spring Flora, or equivalent.

7. *Latin*—Pronunciation (the Roman method); Grammar (an exact knowledge of the inflections is essential); Cæsar, the first four books of the *De Bello Gallico*.

Or *French*—The whole subject of French Grammar. Applicants will be expected to read at sight easy French and to translate correctly into French simple English sentences. Two years ought to be given to this study, the first year being spent mainly on the Grammar with easy reading; the second devoted to reading good modern French, with grammatical analysis and exercises in writing. The texts read should be chiefly narrative and conversational prose; one or more prose comedies of the nineteenth (not the seventeenth) century should be included.

Or *German*—Joynes-Meissner's or Thomas' Grammar is recommended. The essentials in these grammars should have been mastered thoroughly, i. e., declensions of nouns and adjectives, pronouns, comparison of adjectives, prepositions, regular and irregular verbs and essentials of syntax.

The following books or their equivalents must have been read (not less than 600 pp.)

Joynes's or Whitney's Reader, Hillern, Höher als die Kirche, Riehl, Der Fluch der Schönheit, Freytag, Die Verlorne Handschrift, Gerstäcker Irrfahrten.

For the present, the *German* or *French* required for admission may be begun at the University, but without University credits.

5. *Plane Geometry*—White, Venable, Wentworth, or Wells.

6. *Physics*—Gage, Carhart and Chute, Avery, or Appleton.

7. Either of the following:

Civil Government—Fisk or Thorpe preferred.

History—Myers's *General History*.

COURSE IN AGRICULTURE

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

FIRST TERM		REQUIRED		THIRD TERM	
	Credit hours		Credit hours		Credit hours
Agr'l Chemistry (1)	5	Agr'l Chemistry (8)	5.	Agr'l Chemistry (9)	5.
Principles.		Organic.		Applications.	
Botany (6)	5.	Botany (7)	5.	Botany (8)	5.
Physiological.		Physiological and		Economic Botany and	
		Economic.		Vegetable Pathology.	
Drawing (10)	2.				
Rhetoric (1)	2.	Rhetoric (1)	2.	Rhetoric (1)	2.
Paragraph Writing.		Theme writing.		Prose Analysis.	
Zoology (1)	3.	Zoology (1)	3.	Zoology (1)	3.
Invertebrate.		Invertebrate.		Vertebrate.	
Cadet Service (men).*		Cadet Service (men).		Cadet Service (men).	
Hygiene and Physical		Hygiene and Physical		Hygiene and Physical	
Training (women).		Training (women).		Training (women).	

SECOND YEAR

		REQUIRED			
Agriculture (8)	4.	Agriculture (9)	4.	Agriculture (10)	4.
Breeds of Live Stock.		Principles of Breeding.		Stock Feeding.	
Agr'l Chemistry (4)	5.	Agr'l Chemistry (4)	5.	Agr'l Chemistry (4)	5.
Laboratory.		Laboratory.		Laboratory.	
Horticulture (1)	4.	Shopwork (1, 2)	3.	Horticulture (1)	4.
Elements.		Carpentry, Forging.		Elements.	
Physiology (1)	3.	Physiology (1)	3.	Physiology (1)	3.
Anatomy.		Physiology.		Physiology.	
Zoology (4)	2.	Zoology (4)	2.	Zoology (4)	2.
Economic Entomology.		Economic Entomology.		Economic Entomology.	
Cadet Service (men).		Cadet Service (men).		Cadet Service (men).	
Hygiene and Physical		Hygiene and Physical		Hygiene and Physical	
Training (women).		Training (women).		Training (women).	

THIRD YEAR

		REQUIRED			
Agriculture (11)	4.	Agriculture (12)	4.	Agriculture (13)	4.
Farm Equipment.		Soils.		Crops.	
				Drawing (2)	3.
				Lettering.	
* French (1)	4.	French (1)	4.	French (1)	4.
Elementary.		Elementary.		Elementary.	
or		or		or	
German (1)	4.	German (1)	4.	German (1)	4.
Elementary.		Elementary.		Elementary.	
Geology (2)	5.	Geology (2)	5.		
General.		General.			
Veterin'y Medicine (28)	5.	Veterin'y Medicine (29)	5.	Veterin'y Medicine (30)	5.
Anatomy.		General Pathology.		Special Pathology.	

*A rule of the Board of Trustees requires each male student (except students in the College of Law) to render two years' cadet service as a condition of graduation. Students physically incapacitated for cadet service will be assigned an equivalent in special gymnasium work. The President has authority to excuse from cadet service under certain conditions.

Young women are required to carry Hygiene and Physical Training in place of cadet service.

FOURTH YEAR

REQUIRED

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Agriculture (14)	4.	Agriculture (15)	4.	Agriculture (16)	4.
Animal Mechanics.		Dairy.		Rural Economics.	
History (5)	4.	History (5), Economics (2)	4.	Economics (2)	4.
U. S. Political.		Political Economy.			

ELECTIVE

Ten hours a week through the year, including two hours for thesis, chosen from any of the courses given in any College of the University upon which the student is qualified to enter; except in the College of Law.

THESIS

As a requisite for graduation each candidate must present an acceptable thesis embodying the results of a special research. The subject must be announced to the President of the University (dependent upon the written approval of the head of the department in which it lies) not later than the beginning of the second term of the fourth year. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

* Where credit is received for Elementary French or German, French (2) 4 hours or German (4) 4 hours is required.

COURSE IN HORTICULTURE AND FORESTRY

FIRST YEAR

		REQUIRED			
FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Agr'l Chemistry (1) Principles.	5.	Agr'l Chemistry (8) Organic.	5.	Agr'l Chemistry (2) Applications.	5.
Botany (6) Physiological.	5.	Botany (7) Physiological, Economic.	5.	Botany (8) Economic Botany Vegetable Pathology	5.
Drawing (10)	2.				
Rhetoric (1) Paragraph Writing.	2.	Rhetoric (1) Theme Writing.	2.	Rhetoric (1) Prose Analysis.	2.
Zoology (1) Invertebrate.	3.	Zoology (1) Invertebrate	3.	Zoology (1) Vertebrate.	3.
Cadet Service (men).		Cadet Service (men).		Cadet Service (men).	
Hygiene and Physical Training (women).		Hygiene and Physical Training (women).		Hygiene and Physical Training (women).	

SECOND YEAR

		REQUIRED			
Agr'l Chemistry (4) Laboratory.	5.	Agr'l Chemistry (1) Laboratory.	5.	Agr'l Chemistry (4) Laboratory.	5.
*French (1) Elementary or } 4.		French (1) Elementary or } 4.		French (1) Elementary or } 1.	
*German (1) Elementary.		German (1) Elementary.		German (1) Elementary.	
Horticulture (1) Elements.	4.	Shopwork (1, 2) Carpentry and Forging.	3.	Horticulture (1) Elements.	4.
Physiology (1) Anatomy.	3.	Physiology (1) Physiology.	3.	Physiology (1) Physiology.	3.
Zoology (4) Economic Entomology.	2.	Zoology (4) Economic Entomology.	2.	Zoology (4) Economic Entomology.	2.
Cadet Service (men).		Cadet Service (men).		Cadet Service (men).	
Hygiene and Physical Training (women).		Hygiene and Physical Training (women).		Hygiene and Physical Training (women).	

THIRD YEAR

		REQUIRED			
Agriculture (11) Farm Equipment.	4.	Agriculture (12) Soils.	4.	Agriculture (13) Crops.	4.
				Drawing (2) Lettering.	3.
French (2) or } 4.		French (2) or } 4.		French (2) or } 4.	
German (4)		German (4)		German (4)	
Geology (2) General.	5.	Geology (2) General	5.	Zoology (4) Economic Entomology.	3.
Horticulture (5) Pomology, Viticulture.	4.	Horticulture (6) Vegetables and Nursery.	4.	Horticulture (7) Small Fruits and Spraying.	4.

*Where credit is received for Elementary French or German, French (2) 4 or German (4) 4 is required.

FOURTH YEAR

REQUIRED

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Horticulture (8) Elementary Floriculture.	2.	Horticulture (9) Commercial Floriculture.	2.	Horticulture (10) Home Floriculture.	2.
Horticulture (11) Arboriculture.	2.	Horticulture (12) Forestry.	2.	Horticulture (13) Landscape Gardening.	2.
History (5) U. S. Political.	4.	History (5), Economics (2) Political Economy.	4.	Economics (2)	4.

ELECTIVE .

Ten hours a week through the year, including two hours for thesis, chosen from any of the courses given in any College of the University upon which the student is qualified to enter; except in the College of Law.

THESIS

As a requisite for graduation each candidate must present an acceptable thesis embodying the results of a special research. The subject must be announced to the President of the University (dependent upon the written approval of the head of the department in which it lies) not later than the beginning of the second term of the fourth year. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN DOMESTIC ECONOMY

FIRST YEAR

REQUIRED					
FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Agr'l Chemistry (1) Principles.	5.	Agr'l Chemistry (8) Organic.	5.	Agr'l Chemistry (9) Applications.	5.
Botany (6) Physiological.	5.	Botany (7) Physiological and Economic.	5.	Botany (8) Economical Botany Vegetable Pathology.	5.
Drawing (1)	2.	Drawing (1)	2.	Drawing (1)	2.
Rhetoric (1) Paragraph Writing.	2.	Rhetoric (1) Theme Writing.	2.	Rhetoric (1) Prose Analysis	2.
Zoology (1) Invertebrate	3.	Zoology (1) Invertebrate	3.	Zoology (1) Invertebrate	3.
Hygiene and Phys. Train.		Hygiene and Phys. Train.		Hygiene and Phys. Train.	

SECOND YEAR

REQUIRED		REQUIRED	
Agr'l Chemistry (4) Laboratory.*	5. Agr'l Chemistry (4) Laboratory.*	5. Physiology (3) Chemical Physiology.*	5.
Domestic Economy (1)	4. Domestic Economy (2)	4. Domestic Economy (3)	4.
Drawing Mechanical.	2. Drawing Architectural.	2. Drawing (15) House Designing.	2.
+French (1) Elementary. or +German (1) Elementary.	4. French (1) Elementary. or German (1) Elementary.	4. French (1) Elementary. or German (1) Elementary.	4.
Physiology (1)	3. Physiology (1)	3. Physiology (1)	3.
Hygiene and Phys. Train.	Hygiene and Phys. Train.	Hygiene and Phys. Train.	

THIRD YEAR

REQUIRED		REQUIRED	
Domestic Economy (4)	4. Domestic Economy (5)	4. Domestic Economy (6)	4.
French (2) or German (4)	4. French (2) or German (4)	4. French (2) or German (2)	4.
History (5) U. S. Political.	4. History (5) U. S. Political.	4. Economics (2) Political Economy.	4.
Education (1)	4. Economics (2) Political Economy Education (1) English Literature (2)	4. English Literature (2)	4.
Elective: Two hours a week, through the year.			

FOURTH YEAR

REQUIRED		REQUIRED	
Domestic Economy (7)	4. Domestic Economy (8)	4. Domestic Economy (9)	4.
Horticulture (8) Elements of Floriculture.	2. Horticulture (9) Commercial Floriculture.	2. Horticulture (10) Home Floriculture.	2.
	Physiology (6)	2.	

* Specific laboratory work will be provided for students in this course, where necessary.

ELECTIVE

Ten hours a week through the year chosen from any of the courses given in any College of the University upon which the student is qualified to enter: except in the College of Law.

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis embodying the results of a special research. The subject must be announced to the President of the University (dependent upon the written approval of the head of the department in which it lies) not later than the beginning of the second term of the fourth year. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

THE SHORT COURSES

A two-year course in Agriculture and a two-year course in Domestic Economy have been provided for those who have neither the time nor the means to pursue four-year courses. These short courses also enable those who lack the preparation for entering the four-year courses to obtain such preparation. The studies of the first year of the short courses, it will be noticed, nearly prepare the student to enter the first year of the four-year courses. The student having had chemistry in the first year of a short course can finish his preparation for either of the four-year courses during the first year of the latter course, in place of the chemistry required.

At the end of the first year of the Short Course in Agriculture, for example, the student has three strings to his bow. He may finish the second year of the short course by taking the more technical studies from the four-year courses, if lack of time or means demands it; or he may enter either the four-year course in Agriculture or the four year course in Horticulture and Forestry. The same is practically true of the Short Course in Domestic Economy.

These short courses are not, of course, to be compared in breadth, strength, or thoroughness with the full courses of the University. They are far better preparation for the work to which they lead than no preparation; but all students are urged to take or to continue into the full four-year courses wherever possible.

ADMISSION TO THE SHORT COURSES IN AGRICULTURE AND DOMESTIC ECONOMY AND THE COURSE IN DAIRYING

Applicants must be at least fifteen years of age, and unless over twenty-one years of age must pass an examination in *Arithmetic*, *Geography*, *Grammar* and *United States History*, or bring High School or other certificates for those branches. Applicants who are over twenty-one are admitted without examination.

THE SHORT COURSE IN AGRICULTURE

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Agr'l Chemistry (1) Principles.	5.	Agr'l Chemistry (8) Organic.	5.	Agr'l Chemistry (9) Applications.	5.
Mathematics (1) Algebra.	5.	Mathematics (3) Geometry.	5.	Botany (1) Elementary.	5.
Physics (1) Elementary.	5.	Physics (1) Elementary.	5.	Geology (1) Physical Geography.	5.
Drawing (10) Mechanical.	2.	Shopwork (1,2) Carpentry, Forging.	3.	Physiology (2) General.	3.
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

Not less than fifteen hours per week through the year; chosen from any of the following course subject to conditions named under "Departments of Instruction."

Agriculture (8) Breeds of Live Stock.	4.	Agriculture (9) Principles of Breeding.	4.	Agriculture (10) Stock Feeding.	4.
Agriculture (11) Farm Equipment.	4.	Agriculture (12) Soils.	4.	Agriculture (13) Crops.	4.
Botany (6) Physiological.	5.	Agriculture (15) Dairy	4.	Zoology (7) Entomology.	3.
Horticulture (1) Elements.	4.	Horticulture (1) Elements.	4.	Horticulture (1) Elements.	4.
Veterinary Medicine (28) Anatomy.	5.	Veterinary Medicine (29) General Pathology.	5.	Veterinary Medicine (30) Special Pathology.	5.
Horticulture (5)	4.	Horticulture (6) Physiology (6)	4. 2.	Horticulture (7)	4.
Cadet Service.		Cadet Service.		Cadet Service.	

COURSE IN DAIRYING

The course in dairying begins each year on the Wednesday following the first day of January, and continues during the entire term. Butter-making, as practiced in the farm dairy and in the creamery, is thoroughly taught. The student performs all necessary operations in the manufacture of butter by these two methods, under the guidance of the instructors. In cheese-making the principles are taught, with elementary practice.

Agriculture (5). Dairy Farming.—Three hours each week. Lectures and recitations on breeds, breeding, feeding, selection and judging of dairy stock, equipment and management of dairy farms.

Agriculture (6). Butter and Cheese-making.—Four half days each week. Laboratory practice in running separator, churning, working butter, making cheese, milk testing, etc.

Agriculture (7). Butter and cheese-making.—Two hours each week. Lectures and recitations.

Agricultural Chemistry (7). Milk Chemistry and Milk Testing.—Two hours each week. Lectures and laboratory practice.

Physiology (6). Bacteria in their relation to Milk, Butter and Cheese.—Two hours each week. Lectures and laboratory practice.

Veterinary Medicine (17). Diseases of the Cow. Three hours each week.

Care of the Boiler and Engine.—One lecture each week during six weeks.

SHORT COURSE IN DOMESTIC ECONOMY

FIRST YEAR

REQUIRED

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Agr'l Chemistry (1) Principles.	5.	Agr'l Chemistry (8) Organic.	5.	Agr'l Chemistry (9) Applications.	5.
Mathematics (1) Algebra.	5.	Mathematics (3) Geometry.	5.	Botany (1) Elementary.	5.
Physics (1) Elementary.	5.	Physics (1) Elementary.	5.	Geology (1) Physical Geography.	5.
Hygiene and Physical Training.		Hygiene and Physical Training.		Hygiene and Physical Training	

SECOND YEAR

REQUIRED

Domestic Economy.	4.	Domestic Economy.	4.	Domestic Economy.	4.
Domestic Economy.	4.	Domestic Economy.	4.	Domestic Economy.	4.
Hygiene and Physical Training.		Hygiene and Physical Training.		Hygiene and Physical Training	

ELECTIVE

Not less than seven hours per week chosen from the following courses; subject to the conditions named under "Departments of Instruction :"

Botany (6)	5.	Botany (7)	5.	Botany (8)	5.
Physiological.		Physiological and		Economic Botany	
		Economic.		Vegetable Pathology.	
Drawing (1)	2.	Drawing (1)	2.	Drawing (1)	2.
English Literature.	4.	English Literature.	4.	English Literature.	4.
Horticulture (8)	2.	Horticulture (9)	2.	Horticulture (10)	2.
General Floriculture.		Commercial Floriculture.		Home Floriculture.	
Rhetoric (1)	2.	Rhetoric (1)	2.	Rhetoric (1)	2.
Paragraph Writing.		Theme Writing.		Prose Analysis.	
Zoology (1)	3.	Zoology (1)	3.	Zoology (1)	3.
Invertebrate.		Invertebrate.		Vertebrate.	

COLLEGE OF ARTS, PHILOSOPHY, AND SCIENCE

FOR ADMISSION¹ TO THE COURSE IN ARTS

The following are the requirements:

1. *Arithmetic, Descriptive and Physical Geography, English Grammar and United States History.*

2. *English*—(a) Composition and Rhetoric. Each applicant will be tested as to his ability to write clear and correct English. The test will be the writing of two essays of about two hundred words each. The first essay will be upon a subject drawn from the candidate's observation or experience; as "A description of my native town," "The most remarkable person I ever met," "My reason for seeking a University education." The second essay will be upon a subject drawn from the list of classics printed below.

The proper preparation for this requirement is sustained and regular practice in writing. The pupil should be afforded weekly practice in preparing written exercises—paragraphs, outlines, themes, reproductions and abstracts; and his written work should be corrected by the teacher and revised and rewritten by himself.

The pupil should be familiarized with those principles of Rhetoric which are most likely to help him in his composition work; such as the principles of sentential structure, outlining, paragraphing, and choice of words, as given in Scott and Denney's *Composition-Rhetoric*. The study of specimens of bad English is not recommended; the time usually devoted to this may be better spent in memorizing and reciting notable passages of prose and poetry selected from works read entire by the class. Exercises in speaking from a topical outline previously prepared by the class are recommended for drill in expression and choice of words.

The subjects for the weekly written exercises should be so distributed that the pupil will have practice in the four types—description, narration, exposition and argumentation. Some of these subjects should be taken from the classics prescribed below, and other classics, preferably by the same authors, prescribed for parallel or subsidiary outside reading by the class; but fully one-half of the subjects upon which the pupil writes during the preparatory course should be drawn from his own observation and experience, especially subjects in description and narration.

(b) English Classics—Questions will be set for the purpose of testing the applicant's knowledge of the subject-matter, form and substance, of the following books; with the plot, purpose, literary style and peculiarities, incidents, and characters of which the applicant should make himself thoroughly familiar.

1899. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Lowell's *The Vision of Sir Launfal*; Hawthorne's *The House of Seven Gables*.

1900. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Macaulay's *Essay on Milton*; Burke's *Conciliation with the Colonies*.

1901. *Macbeth*; Burke on *Conciliation with the Colonies*; Macaulay's *Essays on Milton and Addison*; Milton's *Comus*, *Lycidas*, *L'Allegro* and *Il Penseroso*; Scott's *Ivanhoe*; Goldsmith's *Vicar of Wakefield*; Tennyson's *Princess*; Coleridge's *The Ancient Mariner*; Lowell's *The Vision of Sir Launfal*.

These or equivalent texts will require minute and critical study in class during at least one school year. The test here is the pupil's ability to analyze plot and character, to explain words, phrases and figures; to reproduce thought, to point out characteristics of style. Systematic

¹An applicant for admission who may be somewhat in arrears in any given subject, will find opportunity to make up his work in the Columbus High Schools, which are fully accredited by the University.

class room study of the texts themselves is the only adequate preparation. Literary history, literary biography and the comments of professional critics will not serve the purpose. The work in class should be intensive and disciplinary; there the distinction between the reading of literature and the study of classics should be sharply defined. Outside reading of other works, preferably by the same authors, is recommended, and should be prescribed as the basis of part of the composition work; but this general reading and composition work should not be regarded as an adequate substitute for the minute study of the few classics prescribed above, and will not be accepted as preparation for this part of the English requirement

3. *Algebra*—Wentworth's or White's or Wells's Elements, complete.
4. *Botany*—Kellerman's Elementary Botany and Spring Flora or equivalent.
5. *Civil Government*—Fiske or Thorpe preferred.
6. *Geometry, Plane and Solid*—Venable, White, Wentworth or Wells.
7. *Greek*—Grammar (Goodwin's preferred) and Prose Composition; or the first 100 lessons of White's Beginner's Greek Book. Reading: The first three books of Xenophon's *Anabasis*. At least two years should be devoted to this work.
8. *History*—Either Myers's General History (or equivalent); or, if the teacher's training and the school library will warrant, Greek and Roman History on the topical method. A circular concerning the topical method will be sent on application.
9. *Latin*—Pronunciation (the Roman method); Grammar (an exact knowledge of the inflections is essential): Cæsar, the first four books of the *De Bello Gallico*; Cicero, six orations, including *Pro Lege Manilia*; Vergil, the first six books of the *Æneid*, with Prosody; Frose Composition, Daniell or Collar or Jones, entire.
10. *Physics*—Carhart and Chute, Gage, Avery, or Appleton.

For the present, the *Greek* required for admission may be begun at the University, but without University credits.

TO THE LATIN COURSE IN PHILOSOPHY

The requirements are the same as for admission to the Course in Arts; except that instead of *Greek*, the applicant must offer *French* or *German*, as follows:

French—The whole subject of French Grammar. Applicants will be expected to read at sight easy French; and to translate correctly into French, simple English sentences. Two years ought to be given to this study, the first year being spent mainly on the Grammar with easy reading; the second devoted to reading good modern French, with grammatical analysis and exercises in writing. The text read should be chiefly narrative and conversational prose; one or more prose comedies of the nineteenth (not the seventeenth) century should be included.

German—Joynes-Meisser's or Thomas's Grammar is recommended. The essentials in these Grammars should have been mastered thoroughly, *i. e.*, declensions of nouns and adjectives, pronouns, comparison of adjectives, prepositions, regular and irregular verbs and essentials of syntax.

The following books or their equivalents must have been read (not less than 600 pp.) Joynes's or Whitney's Reader, Hillern, Höher als die Kirche, Riehl, Der Fluch der Schönheit, Freytag Die Verlorne Haudschrift, Gerstäcker Irrfahrten.

For the year 1899, the *German* or *French* required for admission may be begun at the University, but without University credits. For the year 1900, and thereafter, the full requirements as above stated will be held to.

TO THE MODERN LANGUAGE COURSE IN PHILOSOPHY

The requirements are the same as for admission to the Course of Arts; except that instead of *Latin* and *Greek*, the applicant may offer *Latin* and *French*, or *Latin* and *German*, or *French* and *German*, in the amounts specified above.

For the year 1899, either the *French* or the *German*, (but not both) required for admission may be begun at the University, but without University credits. For the year 1900, and thereafter, the full requirements as above stated will be maintained.

TO THE ENGLISH COURSE IN PHILOSOPHY

The requirements are the same as for admission to the Modern Language Course in Philosophy. But in place of one of the foreign languages the applicant may offer the following group:

1. *Chemistry*—Williams or Remsen.
2. *English Literature*—Pancoast's Introduction to English Literature and an acquaintance with representative works in each period; or, *English History*—Montgomery.
3. *Physiology*—Martin (briefer course).

For the year 1899, one modern language required for admission may be begun at the University, but without University credits. For the year 1900, and thereafter the full requirements as above stated will be held to.

TO THE COURSE IN SCIENCE

The requirements are the same as for admission to the Modern Language Course in Philosophy.

COURSE IN ARTS

Degree: Bachelor of Arts

FIRST YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
Greek (51)	4.	Greek (52)	4.
Xenophon		Herodotus, History.	
Latin (51)	4.	Latin (52)	4.
Cato, Cicero.		Livy, Horace.	
Mathematics (67)	3.	Mathematics (68)	3.
Algebra, Analytics, Calculus.		Trigonometry, Analytics, Calculus.	
Rhetoric (51)	2.	Rhetoric (52)	2.
Paragraph Writing.		Practical Rhetoric.	
Cadet Service (men).*		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	

One of the following (the choice being for the year) :

Botany (57)	3.	Botany (58)	3.
Laboratory.		Laboratory.	
Botany (55)	4.	Zoology (64)	4.
Systematic and Physiological.		Comparative.	
Chemistry (51)	3.	Chemistry (52)	3.
Inorganic.		Inorganic.	
Physics (51) or (53)	3.	Physics (52) or (54)	3.
Mechanics, Heat, etc.		Electricity, Magnetism, etc.	
Zoology (51)	3.	Zoology (52)	3.
Comparative Zoology.		Comparative Zoology.	

SECOND YEAR

Greek (53)	4.	Greek (54)	4.
Lysias.		Homer.	
†History (55)	} 4.	History (56)	} 4.
United States		United States	
or		or	
†Economics (51)	} 4.	Economics (52)	} 4.
Elementary.		Elementary.	
Latin (53)	4.	Latin (54)	4.
Horace, Pliny.		Tacitus, Juvenal.	
English Literature (51)	4.	Rhetoric (54)	4.
Introductory.		Analysis of Prose.	
Cadet Service (men).		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	

THIRD YEAR

Philosophy (51)	4.	Philosophy (52)	4.
Psychology.		Logic and Ethics.	
*Major Study.	4.	Major Study.	4.

ELECTIVE

Eight hours a week through the year—chosen from the courses in this College; *except* that not earlier than the third year :

*A rule of the Board of Trustees requires each male student (except students in the College of Law) to render two years' cadet service as a condition of graduation. Students physically incapacitated for cadet service will be assigned an equivalent in special gymnasium work. The President has authority to excuse from cadet service, under certain conditions.

Young women are required to carry Hygiene and Physical Training in place of cadet service.

†The subject not taken the first Semester will be taken the second.

First: Studies equivalent to five hours a week for one year may be chosen from any course or courses taught in the University; provided that the studies chosen are such as the student is qualified to pursue.

Second: Additional Studies equivalent to five hours a week for one year may be chosen by students in the course in Science from the courses taught in the College of Engineering.

FOURTH YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
*Major Study.	5.	Major Study.	5.
Electives (as in third year).	10.	Electives (as in third year).	10.

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis embodying the results of a special research. The subject of the research must lie in one of the branches (other than science) in which the candidate has studied during either of the last two years prior to graduation. The subject, together with a written approval of it by the head of the Department within which it lies, must be submitted to the President of the University, not later than the beginning of the second semester of the fourth year. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

*Major Study. Not later than the beginning of the Third Year, each student shall elect a Major Study in one department or with the consent of the professors in charge, in allied departments in this college. To the Major Study he shall devote not less than four nor more than ten hours a week during the third year, and not less than five nor more than ten hours the fourth year. With the approval of the proper authority, the Major Study may be entered upon in the second year; an equivalent amount of the required work of that year, not in the line of the Major Study, being postponed to the third year; but the amount so postponed shall not exceed four hours a week. In this case, the elective work of the third year will be reduced by a like amount.

LATIN COURSE IN PHILOSOPHY

Degree: Bachelor of Philosophy

FIRST YEAR.

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
French (51) Elementary or	4.	French (52) Prose and Plays or	4.
German (51) Elementary.		German (52) Elementary.	
Latin (51) Cato, Cicero.	4.	Latin (52) Livy, Horace.	4.
Mathematics (67) Algebra, Analytics, Calculus.	3.	Mathematics (68) Trigonometry, Analytics, Calculus.	3.
Rhetoric (51) Paragraph Writing.	2.	Rhetoric (52) Practical Rhetoric.	2.
Cadet Service (men). Hygiene and Phys. Train. (women).		Cadet Service (men). Hygiene and Phys. Train. (women).	
One of the following (the choice being for the year):			
Botany (57) Laboratory.	3.	Botany (58) Laboratory.	3.
Botany (55) Systematic and Physiological.	4.	Zoology (61) Comparative.	4.
Chemistry (51) Inorganic.	3.	Chemistry (52) Inorganic.	3.
Physics (51) or (53) Mechanics, Heat, etc.	3.	Physics (52) or (54) Electricity, Magnetism, etc.	3.
Zoology (51) Comparative Zoology.	3.	Zoology (52) Comparative Zoology.	3.

SECOND YEAR

French (55) Modern Literature or	4.	French (56) Modern Literature or	4.
German (55) Literature.		German (56) Lyrics.	
*History (55) United States or	4.	History (56) United States or	4.
*Economics (51) Elementary.		Economics (52) Elementary.	
Latin (53) Horace, Pliny.	4.	Latin (54) Tacitus, Juvenal.	4.
*English Literature (51) Introductory.	4.	Rhetoric (54) Analysis of Prose.	4.
Cadet Service (men). Hygiene and Phys. Train. (women).		Cadet Service (men). Hygiene and Phys. Train. (women).	

THIRD YEAR

Philosophy (51) Psychology.	4.	Philosophy (52) Logic and Ethics.	4.
Major Study.	4.	Major Study.	4.

ELECTIVE

Eight hours a week through the year—chosen from the courses in this College, *except* that not earlier than the third year:

First: Studies equivalent to five hours a week for one year may be chosen from any course or courses taught in the University; provided that the studies chosen are such as the student is qualified to pursue.

Second: Additional studies equivalent to five hours a week for one year may be chosen by students in the course in Science from the courses taught in the College of Engineering.

*The subject not taken the first semester, to be taken the second semester.

FOURTH YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
Major Study.	5.	Major Study.	5.
Electives (as in third year).	10.	Electives (as in third year).	10.

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis, embodying the results of a special research. The subject of the research must lie in one of the branches (other than science) in which the candidate has studied during either of the last two years prior to graduation. The subject, together with a written approval of it by the head of the department within which it lies, must be submitted to the President of the University not later than the beginning of the second semester of the fourth year. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

MODERN LANGUAGE COURSE IN PHILOSOPHY

Degree: Bachelor of Philosophy

FIRST YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER.	Credit hours
French	4.	French	4.
German	4.	German	4.
Mathematics (67)	3.	Mathematics (68)	3.
Algebra, Analytics, Calculus.		Trigonometry, Analytics, Calculus.	
Rhetoric (51)	2.	Rhetoric (52)	2.
Paragraph Writing.		Practical Rhetoric.	
Cadet Service (men).		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	
One of the following (the choice being for the year) :			
Botany (57)	3.	Botany (58)	3.
Laboratory.		Laboratory.	
Botany (55)	4.	Zoology (64)	4.
Systematic and Physiological.			
Chemistry (51)	3.	Chemistry (52)	3.
Inorganic.		Inorganic.	
Physics (51) or (53)	3.	Physics (52) or (54)	3.
Mechanics, Heat, etc.		Electricity, Magnetism, etc.	
Zoology (51)	3.	Zoology (52)	3.
Comparative Zoology.		Comparative Zoology.	

SECOND YEAR

French	4.	French	4.
German	4.	German	4.
†History (55)	}	History (56)	}
United States		United States	
or		or	
†Economics (51)		Economics (52)	
Elementary.	4.	Elementary.	4.
Rhetoric (53)	4.	English Literature (52)	
Analysis of Prose.		Introductory.	
Cadet Service (men).		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	

THIRD YEAR

Philosophy (51)	4.	Philosophy (52)	4.
Psychology.		Logic and Ethics.	
Major Study.	4.	Major Study.	4.

ELECTIVE

Eight hours a week through the year—chosen from the courses in this College *except* that not earlier than the third year :

First: Studies equivalent to five hours a week for one year may be chosen from any course or courses taught in the University; provided that the studies chosen are such as the student is qualified to pursue.

Second: Additional studies equivalent to five hours a week for one year may be chosen by students in the course in Science from the courses taught in the College of Engineering.

FOURTH YEAR

Major Study.	5.	Major Study.	5
Electives (as in third year).	10.	Electives (as in third year).	10

†The subject not taken the first semester, will be taken the second semester.

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis, embodying the results of a special research. The subject of the research must lie in one of the branches (other than science) in which the candidate has studied during either of the last two years prior to graduation. The subject must be announced to the President of the University (dependent upon the written approval of the head of the department within which it lies) not later than the beginning of the second semester of the fourth year. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

ENGLISH COURSE IN PHILOSOPHY

Degree: Bachelor of Philosophy

FIRST YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
Elocution and Oratory (51)	2.	Elocution and Oratory (52)	2.
French (51)	4.	French (52)	4.
Elementary. or		Prose and Plays or	
German (51)	4.	German (52)	4.
Elementary.		Elementary.	
History (51)	3.	History (52)	3.
European.		European.	
Mathematics (67)	3.	Mathematics (68)	3.
Algebra, Analytics, Calculus.		Trigonometry, Analytics, Calculus.	
Rhetoric (51)	2.	Rhetoric (52)	2.
Paragraph Writing.		Practical Rhetoric.	
Cadet Service (men).		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	
One of the following (the choice being for the year):			
Botany (57)	3.	Botany (58)	3.
Laboratory.		Laboratory.	
Botany (55)	4.	Zoology (64)	4.
Systematic and Physiological.		Comparative.	
Chemistry (51)	3.	Chemistry (52)	3.
Inorganic.		Inorganic.	
Physics (51) or (53)	3.	Physics (52) or (54)	3.
Mechanics, Heat, etc.		Electricity, Magnetism, etc.	
Zoology (51)	3.	Zoology (52)	3.
Comparative Zoology.		Comparative Zoology.	

SECOND YEAR

English Language (51)	2.	English Language (52)	2.
Old English.		Old English.	
French (55)	4.	French (56)	4.
Modern Literature or		Modern Literature or	
German (55)	4.	German (56)	4.
Literature.		Lyrics.	
+History (55)	4.	History (56)	4.
United States or		United States or	
+Economics (51)	4.	Economics (52)	4.
Elementary.		Elementary.	
Philosophy (53)	3.	Philosophy (54)	3.
Rhetoric (53)	4.	English Literature (52)	4.
Analysis of Prose.		Introductory.	
Cadet Service (men).		Cadet Service (men).	
Hygiene and Phys. Train. (women).		Hygiene and Phys. Train. (women).	

THIRD YEAR

Philosophy (55)	3.	Philosophy (56).	3.
Major Study.	4.	Major Study.	4.

ELECTIVE

Eight hours a week through the year, chosen from the courses in this College, *except* that not earlier than the third year:

First: Studies equivalent to five hours a week for one year may be chosen from any course or courses taught in the University: provided that the studies chosen are such as the students qualified to pursue.

†The subject not taken the first semester will be taken the second.

Second: Additional studies equivalent to five hours a week for one year may be chosen by students in the course in Science from the courses taught in the College of Engineering.

FOURTH YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
Major Study.	5.	Major Study.	5.
Electives (as in third year).	10.	Electives (as in third year).	10.

THESIS

At the beginning of the Senior year, each student in this Course will take up as thesis work some special line of inquiry within the field of his major study, subject to the approval of the professor in charge of the department, and must devote to it two hours per week, or its equivalent, independently of his other work. The subject, together with a written approval of it by the head of the department within which it lies, must be submitted to the President of the University, not later than the beginning of the second semester of the fourth year. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN GENERAL SCIENCE

Degree: Bachelor of Science

FIRST YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
Botany (55) Systematic and Physiological.	4.	Zoology (64) Comparative.	4.
French (51) Elementary or	4.	French (52) Prose and Plays or	4.
German (51) Elementary.		German (52) Elementary.	
Chemistry (51) Inorganic.	3.	Chemistry (52) Inorganic.	3.
Mathematics (67), (65) Algebra, Analytics, Calculus. or	4.	Mathematics (68), (66) Trigonometry, Analytics, Calculus: or	4.
Mathematics (65), (57) Trigonometry and Algebra.	5.	Mathematics (56), (58) Algebra and Analytics.	5.
Rhetoric (51) Paragraph Writing.	2.	Rhetoric (52) Practical Rhetoric.	2.
Cadet Service (men). Hygiene and Phys. Train. (women).		Cadet Service (men). Hygiene and Phys. Train. (women).	

SECOND YEAR

Economics (51) Political Economy.	4.		
† French or	4.	French or	4.
§ German		German	
Physics (51) Mechanics, Heat, etc.	3.	Physics (52) Electricity, Magnetism, etc.	3.
Physiology (51) Human Anatomy.	3.	Physiology (52) Physiology.	3.
		Rhetoric (54) Analysis of Prose.	4.
Cadet Service (men). Hygiene and Phys. Train. (women).		Cadet Service (men). Hygiene and Phys. Train. (women).	

Together with one of the following subjects, to be continued through the year :

(a) Botany (57), (58), each three hours credit or (59), (60), each five hours credit for a semester. (b) General Chemistry (53), (54), each five hours credit. (c) Geology (51), (52), and Metallurgy (52). (Geology running for two-thirds of the year and Metallurgy for one-third; total, five hours credit for the year. (d) Mathematics (59), (61), (60), (62), each five hours credit for a semester. (e) Zoology (53), (54), each three hours credit, or (55), (56), each five hours credit.

THIRD YEAR

+Geology (if not taken the second year) General or	5.	Geology (if not taken the second year) General and Astronomy (52) General or	5.
† French or German	4.	Astronomy (54) Mathematical	
Philosophy (53)	3.	Philosophy (54)	3.
*Major Study.	4.	Major Study.	4.

† In the Second Semester, Geology is followed by Astronomy, which occupies the last nine weeks of the Semester.

* Major Study. Not later than the Beginning of the Third Year each student shall elect a Major Study in Mathematics or in a Science in which Laboratory instruction is given. This Major study shall be in one department, or with the consent of the professors in charge, in two allied departments in this college. To the Major Study the student shall devote not less than four nor more than ten hours a week during the Fourth Year.

‡ It is desired that the student on completing this course, shall possess a good reading knowledge of both French and German. Therefore, the student entering on both French and German will take both languages in the University, each for one year. He who enters on one Modern

Elective: Four hours a week through the year—chosen from the courses in this College, *except* that not earlier than the third year:

First: Studies equivalent to five hours a week for one year may be chosen from any courses taught in the University; provided, that the studies chosen are such as the student is qualified to pursue,

Second: Additional studies equivalent to five hours a week for one year may be chosen in the College of Engineering.

Students intending to make Mathematics a specialty will take French or German the first semester and Mathematical Astronomy the second semester. All other students will take Geology and General Astronomy.

FOURTH YEAR

FIRST SEMESTER		Credit hours	SECOND SEMESTER		Credit hours
Major Study.		5.	Major Study.		5.
Electives.		10.	Electives.		10.

THESIS

As a requisite for graduation each student must present an acceptable thesis embodying the results of a special research. The line of research must lie within the field of the major study, and is subject to the approval of the professor or professors having the major study in charge; and the student shall enter on this work not later than the beginning of the Senior year, and shall devote to it not less than two hours a week, or its equivalent, for one year, independently of his other work. The subject of thesis, together with a written approval of it by the professor or professors directing the investigation, must be submitted to the President of the University, not later than the beginning of the second semester of the fourth year, and the completed thesis must be submitted not later than the second Saturday before Commencement Day. In case two or more students are pursuing the same major study, a joint research and thesis may be made.

Language will continue that language one year in case he cannot read easy prose at sight and take the other language for one year. In case a reading knowledge of one Modern Language is possessed, the student will take the other language two years. The third year of Language in the case of students making the Mathematics a specialty will be that language of which the student has the less knowledge.

THE SPECIAL COURSES

COURSE PREPARATORY TO LAW AND TO JOURNALISM

FOR ADMISSION

The requirements for admission to any of the four courses in the College of Arts, Philosophy and Science; except that the applicant must not be less than eighteen years of age.

FIRST YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER.	Credit hours
English Literature (51) Introductory.	4.	Economics (52) Elementary.	4.
French (51) Elementary.	} 4.	French (52) Prose and Plays	} 4.
or German (51) Elementary.		or German (52) Prose and Plays.	
History (51) European.	3.	History (52) European.	3.
Rhetoric (51) Paragraph Writing.	2.	Rhetoric (52) Theme Writing.	2.
Science, Elective.	3.	Science, Elective.	3.
Cadet Service (men). Hygiene and Physical Training (women).		Cadet Service (men). Hygiene and Physical Training (women).	

SECOND YEAR

Economics (55) Practical Problems.	2.	Economics (56) Industrial and Social Reforms.	2.
Elocution (51)	2.	Elocution (52) Principles.	2.
English Literature, Elective.	2 or 3.	English Literature, Elective.	2 or 3.
History (53) England.	3.	History (54) England.	3.
History (55) United States.	4.	Rhetoric (54) Analysis and Prose.	4.
Philosophy (53) Psychology.	3.	Philosophy (54) Logic.	3.
Rhetoric (55) Newspaper work.	1.	Rhetoric (56) Newspaper Work.	1.
Cadet Service (men). Hygiene and Physical Training (women).		Cadet Service (men). Hygiene and Physical Training (women).	

NOTE.—A student desiring to continue French or German may substitute French (55 and 56), or German (55 and 56), for four hours of the studies of the second year. The studies thus deferred must be taken in the third year.

THIRD YEAR

Not less than sixteen nor more than seventeen hours a week, including studies deferred from the second year; selections to be made from the following, subject to the conditions named in the "Department of Instruction." In view of the fact that this is a special course for special purposes, no substitutions or options further than those indicated below, will be permitted.

Economics (57) The Transportation Problem.	2.	Economics (56) Money and Banking.	2.
English Literature, Elective.	2 or 3.	English Literature, Elective.	2 or 3.
History (61) American History.	2.	History (62) American History.	2.

THIRD YEAR—Concluded.

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Education (57)		2. Education (54)		2.	
History of Education in the United States.		History of Education in the United States.			
Philosophy (55)		3. Philosophy (56)		3.	
Ethics.		Modern.			
Political Science (51)		2. Political Science (52)		2.	
International Law.		Municipal Government.			
Political Science (53)		3. Political Science (54)		3.	
Institutions of the U. S.		Comparative Institutions.			
Rhetoric (57)		3. Rhetoric (58)		3.	
Brief Making and Argument.		Book Reviews and Criticism.			
Rhetoric (59)		2. Rhetoric (60)		2.	
Poetics and Verse Making		Short Stories.			

COURSE PREPARATORY TO THE STUDY OF MEDICINE

FOR ADMISSION

Applicants must be at least seventeen years old, and must pass in *Grammar, Geography, Arithmetic, Algebra (through quadratics), Plane and Solid Geometry, Physics, Rhetoric, U. S. History, and Botany, and either Astronomy, Civil Government or General History.*

FIRST YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
Botany (53) Systematic and Physiological.	4.	Botany (56) (½ Semester) Medical.	1.
Latin (59) Pharmaceutical.	5.	Latin (60) Pharmaceutical.	5.
Physics (53) Mechanics, Heat, etc.	3.	Physics (54) Electricity, Magnetism, etc.	2.
		Physics (60) Laboratory.	2.
		Physiology (58) (½ Semester) Microscopy.	1.
Rhetoric (51) Paragraph Writing.	2.	Rhetoric (52) Analysis of Prose.	2.
Zoology (51) Comparative.	3.	Zoology (52) Comparative.	3.
Cadet Service (men). Hygiene and Phys. Training (women).		Cadet Service (men). Hygiene and Phys. Training (women).	

SECOND YEAR

French (51) Elementary	} 4.	French (52) Prose and Plays	} 4.
or German (51) Elementary.		or German (52) Elementary.	
Chemistry (51) Inorganic.	3.	Chemistry (52) Inorganic.	3.
Physiology (51) Human Anatomy.	3.	Physiology (52) Physiology.	3.
Rhetoric (63) Advanced Rhetoric.	2.	Rhetoric (64) Advanced Rhetoric.	2.
Zoology (55) Comparative Anatomy.	5.	Zoology (56) Comparative Anatomy.	5.
Cadet Service (men). Hygiene and Phys. Training (women).		Cadet Service (men). Hygiene and Phys. Training (women).	

THIRD YEAR

French (53) Science Reading	} 2.	French (54) Science Reading	} 2.
or German (53) Science Reading.		or German (54) Science Reading.	
Economics (51) Political Economy.	4.		
Philosophy (53) Psychology.	3.	Philosophy (54) Logic and Ethics.	3.
Pharmacy (51) General.	3.	Pharmacy (52) General Laboratory.	5.
Physiology (55) Laboratory.	5.	Physiology (56) Laboratory.	5.

COURSE IN COMMERCE AND ADMINISTRATION

Degree: Bachelor of Philosophy

FIRST YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
French (51) Elementary	4.	French (52) Prose and Plays	4.
German (51) Elementary	4.	German (52) Elementary	4.
History (51) European	3.	History (52) European	3.
Mathematics (67) Algebra, Analytics, Calculus	3.	Mathematics (68) Trigonometry, Analytics, Calculus	3.
Rhetoric (51) Paragraph Writing	2.	Rhetoric (52) Practical Rhetoric	2.
Cadet Service (men) Hygiene and Phys. Train. (women).		Cadet Service (men) Hygiene and Phys. Train. (women).	

SECOND YEAR

French (55) Modern Literature or	4.	French (56) Modern Literature or	4.
German (55) Literature		German (56) Lyrics	
*History (55) United States or	4.	*History (56) United States or	4.
*Economics (51) Elementary		*Economics (52) Elementary	
History (53) England	3.	History (54) England	3.
*Rhetoric (53) Analysis of Prose or	4.	*Rhetoric (54) Analysis of Prose or	4.
*English Literature Introductory		*English Literature (52) Introductory.	
Cadet Service (men) Hygiene and Phys. Train. (women).		Cadet Service (men) Hygiene and Phys. Train. (women).	

One of the following (the choice being for the year) :

Botany (57) Laboratory	3.	Botany (58) Laboratory	3.
General Chemistry (51) Inorganic	3.	General Chemistry (52) Inorganic	3.
Physics (51) or (53) Mechanics, Heat, etc.	3.	Physics (52) or (54) Electricity, Magnetism, etc.	3.
Zoology (51) Comparative Zoology.	3.	Zoology (52) Comparative Zoology	3.

* The subject not taken the First Semester will be taken the Second Semester.

THIRD YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
*Elementary Law	6.	*Contracts	4.
Philosophy (51)	4.	Philosophy (51)	5.
†Major Study	4.	†Major Study	4.

ELECTIVE

From the list of courses mentioned below, selection may be made to make up the required number of hours. Not less than sixteen nor more than eighteen hours a week are permitted and no substitutions or options further than those indicated below.

Economics { (53) (55) (57) {	2 or 3.	Economics { (54) (56) (58) {	2 or 3.
German { (59) (63) (65) {	2 or 3.	German { (60) (64) {	2 or 3.
History { (57) (59) {	2 or 3.	History { (58) (60) {	2 or 3.
Political Science (51) (53)	2 or 3.	Political Science (52) (54)	2 or 3.
Rhetoric (57)	3.	Rhetoric (58)	3.
Romance Language	2 or 3.	Romance Language	2 or 3.

FOURTH YEAR

†Major Study	5.	†Major Study	5.
Electives (as in third year)	10.	Electives (as in third year)	10.

THESIS

At the beginning of the fourth year, each student in this Course will take up as thesis work some special line of inquiry within the field of his major study, subject to the approval of the professor in charge of the department, and must devote to it two hours per week, or its equivalent, independently of his other work. The subject, together with a written approval of it by the head of the department within which it lies, must be submitted to the President of the University, not later than the beginning of the second semester of the fourth year. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

*In place of Elementary Law six hours; Commercial Law four hours and Corporations (Private and Municipal) two hours may be substituted. Also in place of Contracts four hours, any two of the following may be substituted: Corporations (Private), Insurance, Agency, Sales, Mortgages.

†Must be continued in the Department chosen in third year.

THE COLLEGE OF ENGINEERING

FOR ADMISSION TO THE FOUR-YEAR COURSES, AND TO THE COURSE
IN ARCHITECTURE

The following are the requirements :

1. *Arithmetic, Descriptive and Physical Geography, English Grammar and United States History.*

2. *English*—(a)—Composition and Rhetoric. Each applicant will be tested as to his ability to write clear and correct English. The test will be the writing of two essays of about two hundred words each. The first essay will be upon a subject drawn from the candidate's observation or experience; as "A description of my native town," "The most remarkable person I ever met," "My reasons for seeking a University education." The second essay will be upon a subject drawn from a list of classics which will be furnished on application.

The proper preparation for this requirement is sustained and regular practice in writing. The pupil should be afforded weekly practice in preparing written exercises—paragraphs, outlines, themes, reproductions and abstracts; and his written work should be corrected by the teacher and revised and rewritten by himself.

The pupil should be familiarized with those principles of Rhetoric which are most likely to help him in his composition work; such as the principles of sentential structure, outlining, paragraphing, and choice of words as given in Scott and Denney's *Composition—Rhetoric*. The study of specimens of bad English is not recommended; the time usually devoted to this may be better spent in memorizing and reciting notable passages of prose and poetry selected from works read entire by the class. Exercises in speaking from a topical outline previously prepared by the class are recommended for drill in expression and choice of words.

The subjects for the weekly written exercises should be so distributed that the pupil will have practice in the four types—description, narration, exposition and argumentation. Some of these subjects should be taken from the classics prescribed below and from other classics, preferably by the same authors, prescribed for parallel or subsidiary outside reading by the class, but fully one-half of the subjects upon which the pupil writes during his preparatory course should be drawn from his own observation and experience, especially subjects in description and narration.

(b) *English Classics*—Questions will be set for the purpose of testing the applicant's knowledge of the subject matter, form and substance, of the following books; with the plot, purpose, literary style and peculiarities, incidents, and characters of which the applicant should make himself thoroughly familiar:

1899. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII, and XXIV; The Sir Roger de Coverly Papers in *The Spectator*, Goldsmith's *The Vicar of Wakefield*, Scott's *Ivanhoe*, Cooper's *The Last of the Mohicans*, Lowell's *The Vision of Sir Launfal*, Hawthorne's *The House of Seven Gables*.

1900. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, IV, XXII, and XXIV; The Sir Roger de Coverly Papers in *The Spectator*, Goldsmith's *The Vicar of Wakefield*, Scott's *Ivanhoe*, Cooper's *The Last of The Mohicans*, Macauley's *Essay on Milton*, Burke's *Conciliation with the Colonies*.

1901. *Macbeth*; Burke's *Conciliation with the Colonies*; Macauley's *Essays on Milton and Addison*; Milton's *Comus*, *Lycidas*, *L'Allegro*, *Il Penseroso*; Scott's *Ivanhoe*; Goldsmith's *The Vicar of Wakefield*; Tennyson's *Princess*; Coleridge's *The Ancient Mariner*; Lowell's *The Vision of Sir Launfal*.

These or equivalent texts will require minute and critical study in class during at least one school year. The test here is the pupil's ability to analyze plot and character, to explain words, phrases and figures, to reproduce thought, to point out characteristics of style. Systematic

classroom study of the texts themselves is the only adequate preparation. Literary history, literary biography and the comments of professional critics will not serve the purpose. The work in class should be intensive and disciplinary; there the distinction between the reading of literature and the study of classics should be sharply defined. Outside reading of other works, preferably by the same authors, is recommended, and should be prescribed as the basis of part of the composition work; but this general reading and composition work should not be regarded as an adequate substitute for the minute study of the few classics prescribed above, and will not be accepted as preparation for this part of the English requirement.

3. *Algebra*—Wentworth's, White's, or Well's Elements, complete.
4. *Civil Government*—Fiske or Thorpe preferred.
5. *Geometry, Plane and Solid*—Venable, Wentworth, White, or Wells.
6. *History*—Myers' General History.

7. *Latin*—Pronunciation (the Roman method); Grammar (an exact knowledge of the inflections is essential); Cæsar, the first four books of the *De Bello Gallico*.

Or *French*—The whole subject of French Grammar. Applicants will be expected to read at sight easy French; and to translate correctly into French, simple English sentences. Two years ought to be given to this study, the first year being spent mainly on the grammar with easy reading; the second devoted to reading good modern French with grammatical analysis and exercises in writing. The texts read should be chiefly narrative and conversational prose; one or more prose comedies of the nineteenth (not the seventeenth) century should be included.

Or *German*—Joynes-Meissner's, or Thomas' Grammar is recommended. The essentials in these grammars should have been mastered thoroughly, i. e., declensions of nouns and adjectives, pronouns, comparison of adjectives, prepositions, regular and irregular verbs and essentials of syntax.

The following books or their equivalents must have been read (not less than 600 pp.)

Joynes' or Whitney's Reader, Hillern, Hoher als die Kirche, Riehl, Der Fluch der Schönheit, Freytag, Die Verloore Handschrift, Gerstacker Irrfahrten.

For the year 1898-99 the German or French required for admission may be begun at the University, but without University credits.

8. *Physics*—Gage, Carhart and Chute, Avery or Appleton, complete.

COURSE IN CIVIL ENGINEERING

This course is arranged for students expecting to become surveyors or civil engineers. The plan of the course is to give (1) a thorough training in mathematics and mechanics, (2) the general principles underlying all branches of civil engineering, (3) the application of the general principles to the several branches of civil engineering. The subjects of land, railroad and topographical surveying are important features, and students can at once begin practical work. In the engineering work special attention is given to iron and steel bridge work, masonry construction and cement testing, road and railroad building and maintenance, water supply and the subject of the collection and disposal of sewage.

NOTE—An applicant for admission who may be somewhat in arrears in any given subject, will find opportunity to make up this work in the Columbus High Schools, which are fully accredited by the University.

No student will be admitted to the College of Engineering who is in arrears more than fifteen hours, of which not more than five hours may be in Mathematics.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Drawing (1) Freehand.	2.	Drawing (1) Freehand.	2.	Drawing (2) Lettering.	3.
French (1) or German (1)	{ 4.	French (1) or German (1)	{ 4.	French (1) or German (1)	{ 4.
Chemistry (7) Inorganic.	5.	Chemistry (7) Inorganic.	5.	Metallurgy (2) Mineralogy.	3.
Mathematics (14) Trigonometry.	5.	Mathematics (15), (16) Trigonometry, Algebra.	2, 3.	Mathematics (17) Plane Analytics.	5.
Rhetoric (1) Paragraph Writing.	2.	Rhetoric (1) Theme Writing.	2.	Rhetoric (1) Prose Analysis.	2.
Cadet Service.		Cadet Service.		Cadet Service	

SECOND YEAR

Civil Engineering (1) Surveying	6.	Civil Engineering (4) C. E. Drawing.	4.	Civil Engineering (2) Surveying.	6.
Drawing (3) Projections.	3.	Drawing (3) Descriptive Geometry.	5.	Drawing (3) Shades, Shadows and Per	3.
Mathematics (18) Space Analy. and Calculus.	5.	Mathematics (19) Calculus.	5.	Mathematics (20) Calculus.	5.
Physics (2) Mechanics and Heat.	3.	Physics (2) Electricity and Magnetism.	3.	Physics (2) Light and Sound.	3.
Cadet Service.		Cadet Service.		Cadet Service.	

VOLUNTARY

French (3)	2.	or German (2) Each for the year.	2.	or Rhetoric (4)	2.
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THIRD YEAR

Civil Engineering (3) Surveying.	4.	Civil Engineering (5) C. E. Drawing.	3.	Astronomy (2) Mathematical.	4.
Mathematics (8) Least Squares.	2.	Civil Engineering (6) Stereotomy.	4.	Civil Engineering (7) Bridge Strains.	5.
Geology (2) General.	5.	Geology (2) General.	5.	Drawing (7) Photography.	2.
Mech. Engineering (6) Mechanics.	5.	Mech. Engineering (6) Mechanics.	5.	Mech. Engineering (7) Strength of Materials.	5.
Rhetoric (3) Advanced.	2.	Rhetoric (3) Advanced.	2.	Rhetoric (3) Advanced.	2.

FOURTH YEAR

Astronomy (2) Mathematical	4.	Civil Engin'g (16) or (17) Masonry, Railways	5.	Civil Engineering (10) Sanitary Engineering	5.
		Civil Engineering (14) Testing Laboratory	2.	Law of Contracts	4.
Civil Engineering (8) Bridge Designing	5.	Civil Engineering (18) Water Supply	5.		
Civil Engineering (15) Masonry	5.	Elec. Engineering Lectures (6) Laboratory (7)	2. 2.	Geology (3) Economic	5.
Elec. Engineering Lectures (6) Laboratory (7)	2. 2.	Mech. Engineering (17) Laboratory	3.	Mech. Engineering (25) Laboratory	3.

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis, embodying the results of a special study. The subject of this study must lie within the field of Civil Engineering. The subject must be announced to the President of the University (dependent upon the approval of the head of the Department) not later than the beginning of the second term of the fourth year, and the completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN MINE ENGINEERING

This Course is arranged for students intending to become mining engineers and surveyors, metallurgical or technical chemists. The plan of work, therefore, while keeping mathematics, drawing and engineering prominent, also provides extended work in applied chemistry, chemical analysis, assaying, mineralogy, geology, and surveying with especial application to mines and underground work, while the treatment of ores, both mechanical in ore dressing and chemical in metallurgy, forms an important feature.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Drawing (1) Freehand	2.	Drawing (1) Freehand	2.	Drawing (2) Lettering	3.
French (1) or German (1)	{ 4.	French (1) or German (1)	{ 4.	French (1) or German (1)	{ 4.
Chemistry (7) Inorganic		Chemistry (7) Inorganic		Metallurgy (2) Mineralogy	
Mathematics (14) Trigonometry	5.	Mathematics (15) (16) Trigonometry Algebra	2. 3.	Mathematics (17) Plane Analytics	5.
Rhetoric (1) Paragraph Writing	2.	Rhetoric (1) Theme Writing	2.	Rhetoric (1) Prose Analysis	2.
Cadet Service		Cadet Service		Cadet Service	

SECOND YEAR

Drawing (3) Projections	3.	Drawing (3) Descriptive Geometry	3.	Drawing (3) Shades, Shadows and Per.	3.
Mathematics (18) Analytics and Calculus	5.	Mathematics (19) Calculus	5.	Mathematics (20) Calculus	5.
Metallurgy (5) Laboratory	5.	Metallurgy (5) Laboratory	5.	Metallurgy (5) Laboratory	5.
Physics (2) Mechanics and Heat	3.	Physics (2) Electricity and Magnetism	3.	Physics (2) Light and Sound	3.
Shopwork (1) Woodwork	2.	Shopwork (2) Forging	2.	Shopwork (4) Chipping and Filing	2.
Cadet Service		Cadet Service		Cadet Service	
VOLUNTARY					
French (3)	2.	or German (2) Each for the year	2.	or Rhetoric (4)	2.

THIRD YEAR

Mech. Engineering (6) Mechanics	5.	Mech. Engineering (6) Mechanics	5.	Mech. Engineering (7) Strength of Materials	5.
Metallurgy (4) Fuels and Iron	5.	Metallurgy (4) Steel, Copper, Gold, etc.	5.	Civil Engineering (19) Bridge Strains	5.
Mine Engineering (4) Mine Surveying	5.	Metallurgy (6) Assaying	5.	Metallurgy (3) Deter. Mineralogy	5.
Rhetoric (3) Advanced	2.	Rhetoric (3) Advanced	2.	Rhetoric (3) Advanced	2.

FOURTH YEAR

Elec. Engineering Lectures (6)	2.	Elec. Engineering Lectures (6)	2.	Geology (3) Economic	5.
Laboratory (7)	2.	Laboratory (7)	2.		
Geology (2) General	5.	Geology (2) General	5.	Mine Engineering (6) Plans and Specifications	5.
Mine Engineering (5) Mine Engineering	5.	Metallurgy (7) Metal. Construction	3.	Mine Engineering (5) Mine Engineering	5.
Metallurgy (8) Ore Dressing	2.	Mine Engineering (5) Mine Engineering	5.	Drawing (7) Photography	2.

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis, embodying the results of a special study. The subject of such study must lie within the field of Metallurgy or of Mine Engineering. The subject must be announced to the President of the University (dependent upon the written approval of the head of the department) not later than the beginning of the second term of the fourth year; and the completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN MECHANICAL ENGINEERING

This Course has for its first object the qualifying of men for the mechanical engineering profession. It aims to embrace preparation for such lines of pursuit as the successful management of machinery in manufacturing establishments; the superintendence of construction; the designing and laying out of machinery plants for mills and factories; the construction of machines for particular purposes, and the designing and drawing of the same, the making of calculations respecting strength, shocks, proportion, endurance, and suitability of material for specific purposes.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Drawing (1) Freehand	2.	Drawing (1) Freehand	2.	Drawing (2) Lettering	3.
French (1) or German (1)	4.	French (1) or German (1)	4.	French (1) or German (1)	4.
Chemistry (7) Inorganic	5.	Chemistry (7) Inorganic	5.	Shopwork (1) Carpentry and Pat'n Mak'g	4.
Mathematics (14) Trigonometry	5.	Mathematics (15) (16) Trigonometry Algebra	2, 3.	Mathematics (17) Plane Analytics	5.
Rhetoric (1) Paragraph Writing	2.	Rhetoric (1) Theme Writing	2.	Rhetoric (1) Prose Analysis	2.
Cadet Service		Cadet Service		Cadet Service	

SECOND YEAR

Drawing (3) Projections	3.	Drawing (3) Descr. Geometry	3.	Drawing (3) Shades, Shadows and Per.	3.
Mathematics (18) Analytics and Calculus	5.	Mathematics (19) Calculus	5.	Mathematics (20) Calculus	5.
Physics (2) Mechanics and Heat	3.	Physics (2) Electricity and Magnetism	3.	Physics (2) Sound and Light	3.
Rhetoric (3) Advanced	2.	Physics (7) Laboratory	2.	Physics (7) Laboratory	3.
Shopwork (2, 3) Forging and Foundry	5.	Rhetoric (3) Advanced	2.	Rhetoric (3) Advanced	2.
Cadet Service		Shopwork (4) Chipping and Filing	3.	Shopwork (5) Machine work	3.
		Cadet Service		Cadet Service	

VOLUNTARY

French (3)	2.	or German (2) Each for the year	2.	or Rhetoric (4)	
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THIRD YEAR

Drawing (5) Technical	3.	Mech. Engineering (6) Mechanics	5.	Drawing (7) Photography	
Mathematics (11) Differential Equations	1.	Mech. Engineering (22) Timber and Masonry	3.	Civil Engineering (19) Bridge Strains	

THIRD YEAR—Concluded.

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Mech. Engineering (6) Mechanics	5.	Mech. Engineering (3) Mechanism	5.	Mech. Engineering (7) Strength of Materials	5.
Metallurgy (4) Fuels and Iron	5.	Metallurgy (4) Steel	2.		
Shopwork (6) Advanced Machine Work	3.	Shopwork (6) Advanced Machine Work	4.	Mech. Engineering (3) Mechanism	2.
Mech. Engineering (12) Laboratory	2.			Industrial Arts (3) Machine Design	5.

FOURTH YEAR

Elec. Engineering Lectures (6)	2.	Elec. Engineering Lectures (6)	2.	Industrial Arts (5) Shop Appliances	3.
Laboratory (7)	2.	Laboratory (7)	2.		
Mech. Engineering (13) Laboratory	4.			Mech. Engineering (10) Steam Boilers	5.
Mech. Engineering (8) Thermodynamics	5.	Mech. Engineering (9) Prime Movers	5.	Mech. Engineering (15) Laboratory	3.
		Mech. Engineering (14) Laboratory	4.	Mech. Engineering (20) Hydraulic Mach.	2.
Mech. Engineering (18) Mach. Design	5.	Mech. Engineering (18) Mach. Design	5.	Mech. Engineering (21) Thesis Work	5.

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis, embodying the results of a special study. The subject of such study must lie within the field of Mechanical Engineering. The subject must be announced to the President of the University (dependent upon the written approval of the head of the department) not later than the beginning of the second term of the fourth year, and the completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN ELECTRICAL ENGINEERING

The object of this Course is to prepare students for the various pursuits in which the applications of electricity are prominent. Physics, especially theoretical and applied electricity, and mechanical engineering are naturally the leading subjects of the Course. General theory is treated in ample breadth, and is tested by experiments in well equipped laboratories. The laboratories are so conducted as to afford the student a degree of facility in the use of instruments and machinery only acquired by continued practice.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Drawing (1) Freehand.	2.	Drawing (1) Freehand.	2.	Drawing (2) Lettering.	3.
French (1) or German (1)	4.	French (1) or German (1)	4.	French (1) or German (1)	4.
Chemistry (7) Inorganic.	5.	Chemistry (7) Inorganic.	5.	Shop Work (1) Carpentry and Pat'n Mak'g	4.
Mathematics (14) Trigonometry.	5.	Mathematics (15), (16) Trigonometry, Algebra.	2, 3.	Mathematics (17) Plane Analytics.	5.
Rhetoric (1) Paragraph Writing.	2.	Rhetoric (1) Theme Writing.	2.	Rhetoric (1) Prose Analytics.	2.
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

Drawing (3) Projections.	3.	Drawing (3) Descriptive Geometry.	3.	Drawing (3) Shade, Shadows and Per.	3.
Mathematics (18) Analytics and Calculus.	5.	Mathematics (19) Calculus.	5.	Mathematics (20) Calculus.	5.

SECOND YEAR—Concluded.

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Physics (2)	3.	Physics (2)	3.	Physics (2)	3.
Mechanics.		Electricity, Magnetism		Light, Sound.	
Physics (3)	2.	Physics (3)	2.	Physics (3)	2.
Problems.		Problems.		Problems.	
Shopwork (2)	2.	Physics (5)	3.	Physics (5)	3.
Forging.		Laboratory.		Laboratory.	
Rhetoric (3)	2.	Rhetoric (3)	2.	Rhetoric (3)	2.
Advanced.		Advanced.		Advanced.	
Shopwork (4)	2.	Shopwork (5)	2.		
Chipping and Filing.		Machine Work.			
Cadet Service.		Cadet Service.		Cadet Service.	

VOLUNTARY

French (3)	2.	or German (2)	2.	or Rhetoric (4)	2.
		Each for the year.			

THIRD YEAR

Drawing (5)	3.	Shopwork (6)	4.	Industrial Arts (6)	5.
Technical.		Advanced Machine Work.		Machine Design.	
Mathematics (11)	1.	Mech. Engineering (3)	5.	Mech. Engineering (16)	4.
Differential Equations.		Mechanism.		Laboratory.	
Mech. Engineering (6)	5.	Mech. Engineering (6)	5.	Mech. Engineering (7)	5.
Mechanics.		Mechanics.		Strength of Materials.	
Physics (6)	5.	Physics (6)	5.	Physics (6)	5.
Laboratory.		Laboratory.		Laboratory.	
Physics (4)	3.				
Electricity and Magnetism.					

FOURTH YEAR

Elec. Engineering (2)	5.	Elec. Engineering (2)	5.	Elec. Engineering (2)	5.
Elec. Machinery.		Elec. Machinery.		Elec. Machinery.	
Elec. Engineering (3)	3.	Elec. Engineering (3)	3.	Elec. Engineering (3)	3.
Designing and Drawing.		Designing and Drawing.		Designing and Drawing.	
Elec. Engineering (4)	5.	Elec. Engineering (4)	5.	Elec. Engineering (4)	5.
Laboratory		Laboratory and Thesis.		Laboratory and Thesis.	
Mech. Engineering (8)	5.	Mech. Engineering (9)	5.	Mech. Engineering (10)	5.
Thermodynamics.		Prime Movers.		Steam Boilers.	

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis, embodying the result of a special study. The subject of such study must lie within the field of Electrical Engineering. The subject must be announced to the President of the University (dependent upon the written approval of the head of the Department) not later than the beginning of the second term of the fourth year, and the completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN CERAMICS

This Course is designed to create a class of engineers who shall be fitted to render to the Clay, Glass and Cement Industries, the same kind of services which have long been rendered to Mining and Metallurgical Industries by graduates of Schools of Mines.

The problems of the Ceramic Industries are not unlike those of the Mining Industries, either in kind or in adaptation to methods of technical control; but the information and scientific equipment necessary to solve these problems successfully are peculiar to those industries alone, and in the past have received little or no attention from technical schools in this country.

This course is offered with the hope of filling this long standing gap in the scheme of engineering education in this country. It is essentially an Engineering Course, following closely the lines of the other engineering courses, up to the end of the second year. In the last two years, the training specializes along the lines of Ceramics and of the application of Chemistry to this subject.

NOTE—The figure in parenthesis following the name of each study indicates the number of the study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Drawing (1)	2.	Drawing (1)	2.	Drawing (2)	3.
Freehand		Freehand		Lettering	
Chemistry (7)	5.	Chemistry (7)	5.	Metallurgy (2)	3.
Inorganic		Inorganic		Mineralogy	
German (1) or (4)	4.	German (1) or (4)	4.	German (1) or (4)	4.
Mathematics (14)	5.	Mathematics (15), (16)	2, 3.	Mathematics (17)	5.
Trigonometry		Trigonometry Algebra		Plane Analytics	
Rhetoric (1)	2.	Rhetoric (1)	2.	Rhetoric (1)	2.
Paragraph Writing		Theme Writing		Prose Analysis	
Cadet Service		Cadet Service		Cadet Service	

SECOND YEAR

Ceramics (1)	5.	Ceramics (2)	5.	Ceramics (3)	5.
Laboratory		Laboratory		Laboratory	
Drawing (3)	3.	Drawing (3)	3.	Drawing (3)	3.
Projections		Descriptive Geometry		Shades, Shadows and Per.	
Mathematics (18)	5.	Mathematics (19)	5.	Mathematics (20)	5.
Analytics and Calculus		Calculus		Calculus	
Physics (2)	3.	Physics (2)	3.	Physics (2)	3.
Mechanics and Heat		Electricity and Magnetism		Light and Sound	
Shopwork (1)	2.	Shopwork (2)	2.	Shopwork (4)	2.
Woodwork		Forging		Chipping and Filing	
Cadet Service		Cadet Service		Cadet Service	

VOLUNTARY

French (3)	2.	or German (2)	2.	or Rhetoric (4)	2.
		Each through the year			

THIRD YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Ceramics (4)	5.	Ceramics (5)	5.	Ceramics (6)	5.
General Principles		Bricks		Pottery	
Mine Engineering (4)	5.	Ceramics (7)	5.	Ceramics (8)	5.
Mine Surveying		Advanced Chemical Laboratory Work		Advanced Chemical Laboratory Work	
Mech. Engineering (6)	5.	Mech. Engineering (6)	5.	Mech. Engineering (7)	5.
Mechanics		Mechanics		Strength of Materials	
Rhetoric (3)	2.	Rhetoric (3)	2.	Rhetoric (3)	2.
Advanced		Advanced		Advanced	

FOURTH YEAR

Ceramics (9)	5.	Ceramics (10)	5.	Ceramics (11)	5.
Manufacture of Bodies		Glasses and Glazes		Enamels and Colors	
Drawing (7)	2.	Ceramics (12)	5.		
Photography		Cement			
Geology (2)	5.	Ceramics (13)	2.	Ceramics (15)	5.
General		Ceramic Construction		Thesis Work	
Metallurgy (4)	5.	Ceramics (14)	5.	Geology (3)	5.
Fuels and Iron		Reports on Clay Prop.		Economic	

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis, embodying the results of a special study. The subject of this study must lie within the field of Ceramic Engineering. The subject must be announced to the President of the University (dependent upon the approval of the head of the Department), not later than the beginning of the second term of the fourth year; and the completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN INDUSTRIAL ARTS

This course is designed to furnish a strong basis for those wishing to become teachers of Manual Training and for those intending to enter the various branches of manufacture and industry, not as engineers, but as practical managers, superintendents or business men. The required part of the course combines with a general science training a large amount of drawing and shop work, in which the underlying principles and methods employed in various branches of industry are dwelt on. Large liberty of election of studies is allowed the student. His election, properly exercised, together with the required work will equip the student for a wide range of occupations along the lines stated. The aim of the course is educational as well as professional, the training of the mind and hand together.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows the statement of Courses.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Drawing (1)	1.	Drawing (1)	1.	Drawing (1)	1.
Freehand.		Freehand.		Freehand.	
Drawing (8)	2.	Drawing (8)	2.	Drawing (2)	2.
Geometric.		Projections.		Lettering.	
Mathematics (14)	5.	Mathematics (15), (16)	2, 3.	Mathematics (17)	5.
Plane Trigonometry.		Trigonometry, Algebra.		Plane Analytics.	
Rhetoric (1)	2.	Rhetoric (1)	2.	Rhetoric (1)	2.
Paragraph Writing.		Theme Writing.		Prose Analysis.	
Shop Work (1)	3.	Shop Work (1)	3.	Shop Work (1)	3.
Carpentry and Pattern Making.		Carpentry and Pattern Making.		Carpentry and Pattern Making.	
Cadet Service.		Cadet Service.		Cadet Service.	

Electives, three to five hours—any work upon which the student is qualified to enter, in any College except the College of Law.

At some time during the Course, the student must elect in Chemistry the equivalent of at least five hours for two terms.

SECOND YEAR

Drawing (3) Projections.	3.	Drawing (3) Descriptive Geometry.	3.	Drawing (3) Shades, Shadows and Per.	3.
Physics (2) Mechanics and Heat.	3.	Physics (2) Electricity.	3.	Physics (2) Sound and Light.	3.
Rhetoric (3) Advanced.	2.	Rhetoric (3) Advanced.	2.	Rhetoric (3) Advanced.	2.
Shop Work (3) Foundry.	3.	Shop Work (2) Forging.	3.	Shop Work (2) Forging.	3.
Cadet Service.		Cadet Service.		Cadet Service.	

Electives, six to eight hours—any work upon which the student is qualified to enter, in any College except the College of Law.

THIRD YEAR

Drawing (5) Technical.	3.	Industrial Arts (2) Tech. Drawing.	3.	Industrial Arts (2) Tech. Drawing.	3.
Industrial Arts (1) Tools and Machines.	3.	Industrial Arts (1) Tools and Machines.	3.	Industrial Arts (1) Tools and Machines.	3.
Shop Work (4) Chipping and Filing.	3.	Shop Work (5) Machine Work.	3.	Shop Work (5) Machine Work.	3.

Electives, eight to ten hours—any work upon which the student is qualified to enter, in any College except the College of Law.

FOURTH YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Industrial Arts (3) Shop Equipment.	3.	Industrial Arts (3) Shop Appliances.	3.	Industrial Arts (3) Shop Management.	3.
Industrial Arts (4) Tech. Drawing.	3.	Industrial Arts (4) Tech. Drawing.	3.	Industrial Arts (4) Tech. Drawing.	3.
Shop Work (6) Machine Work.	3.	Shop Work (6) Machine Work.	3.	Shop Work (6) Machine Work.	3.

Electives, eight to ten hours—any work upon which the student is qualified to enter, in any College except the College of Law.

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis embodying the results of a special study. The subject of such study must lie within the field of Industrial Arts. The subject must be announced to the President of the University (dependent upon the written approval of the head of the Department), not later than the beginning of the second term of the fourth year, and the completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN CHEMISTRY

The object of this Course is to prepare students for work in Industrial Chemistry or Metallurgical Chemistry, according to electives chosen. With proper electives it will also be found a desirable course for students expecting to become general analytical chemists.

The electives are subject to the approval of the head of the department of Chemistry, or of Metallurgy and Mineralogy for students in Metallurgical Chemistry.

NOTE—The figure in parenthesis following the name of each study indicates the number of the study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Drawing (1)	2.	Drawing (1)	2.	Drawing (2)	3.
Freehand.		Freehand.		Lettering.	
Chemistry (7)	5.	Chemistry (7)	5.	Chemistry (12)	5.
Inorganic.		Inorganic.		Inorganic.	
German (1) or (4)	4.	German (1) or (4)	4.	German (1) or (4)	4.
Mathematics (14)	5.	Mathematics (15) (16)	5.	Mathematics (17)	5.
Trigonometry.		Trigonometry, Algebra.		Plane Analytics.	
Rhetoric (1)	2.	Rhetoric (1)	2.	Rhetoric (1)	2.
Paragraph Writing.		Theme Writing.		Prose Analysis.	
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

Chemistry (4)	5.	Chemistry (4)	5.	Chemistry (4)	5.
Quantitative.		Quantitative.		Quantitative.	
German (2)	2.	German (2)	2.	German (2)	2.
Scientific Reading.		Scientific Reading.		Scientific Reading.	
Physics (2)	3.	Physics (2)	3.	Physics (2)	3.
Mechanics and Heat.		Electricity and Magnetism.		Sound and Light.	
Shopwork (1)	3.	Shopwork (1)	3.	Metallurgy (2)	3.
Woodwork.		Woodwork.		Mineralogy.	
Cadet Service.		Cadet Service.		Cadet Service.	

Electives three to five hours throughout the year.

The following are suggested: Mathematics (18, 19, 20), 5 hours; Drawing (3), 3 hours; Physiology (3), 3 hours; History (5), 4 hours; Economics (1), 4 hours.

THIRD YEAR

Chemistry (8)	5.	Chemistry (9)	5.	Chemistry (9)	5.
Organic.		Organic.		Organic.	
Metallurgy (5)	5.	Metallurgy (6)	5.	Metallurgy (5)	5.
Laboratory.		Assaying.		Laboratory.	
Rhetoric (3)	2.	Rhetoric (3)	2.	Rhetoric (3)	2.
Advanced.		Advanced.		Advanced.	

Electives five to eight hours throughout the year.

The following are suggested: Physical Laboratory, 3 to 5 hours; Geology 5 hours—or Geology and Determinative Mineralogy, 5 hours; Shopwork, 3 hours.

FOURTH YEAR

Chemistry (17)	4.	Chemistry (14)	3.	Chemistry (15)	4.
Inorganic Preparations		Theoretical		Sanitary	
Metallurgy (4)	5.	Chemistry (16)	3.	Ceramics (16)	3.
Fuels and Iron		Applied		Applied	
		Physiology (8)	2.		
		Bacteriology			

Electives to make the total work equal sixteen or eighteen hours, including Thesis work.

Students in Metallurgical Chemistry will take Ore Dressing the first term, and Metallurgy (4) 5, through the second term. For such students Chemistry (14, 15, 16) and Physiology (8) will not be compulsory.

THESIS

As a requisite for graduation, each candidate must present an acceptable thesis, embodying the results of a special study. The subject of the study must lie within the field of Chemistry or Metallurgy. The subject must be announced to the President of the University (dependent upon the approval of the head of the department), not later than the beginning of the second term of the fourth year, and the completed thesis must be submitted not later than the second Saturday before Commencement Day.

COURSE IN ARCHITECTURE

This Course was established in 1896, to meet a growing demand for special training along this line. The extremely rapid developments, in late years, of novel methods of construction, the constantly extending list of materials used, and the creation of types of building entirely without precedent in the history of architecture, render it not only desirable, but imperative, that a large class of thoroughly trained and equipped men shall be brought forward, if this progress is to be maintained.

The employment in architecture of so many young men trained in other branches of engineering seems to prove the urgent need of those whose training is directed expressly to this end.

The Course offered gives a good training in mathematics, physics and mechanics, which are fundamental, together with a thorough drill in drawing, designing, shop work, and the more technical branches of architecture proper.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows the statement of Courses.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Drawing (1)	3.	Drawing (1)	3.	Drawing (1)	3.
Freehand		Freehand		Water Color	
Chemistry (7)	5.	Chemistry (7)	5.	Drawing (2)	3.
Inorganic		Inorganic		Lettering	
Mathematics (14)	5.	Mathematics (15), (16)	2, 3.	Mathematics (17)	5.
Plane Trigonometry		Trigonometry, Algebra		Plane Analytics	
Rhetoric (1)	2.	Rhetoric (1)	2.	Rhetoric (1)	2.
Paragraph Writing		Theme Writing		Prose Analysis	
Shop Work (1)	3.	Shop Work (1)	3.	Shop Work (1)	3.
Carpentry and Pattern Making		Carpentry and Pattern Making		Carpentry and Pattern Making	
Cadet Service		Cadet Service		Cadet Service	

SECOND YEAR

Drawing (7)	2.	Architecture (1)	5.	Architecture (2)	5.
Photography		Orders		Styles	
Drawing (3)	3.	Drawing (3)	5.	Drawing (3)	5.
Projections		Descriptive Geometry		Shades, Shadows and Per.	
Drawing (14)	2.	Drawing (12)	2.	Drawing (12)	2.
Pen		Clay Modelling		Clay Modelling	
Greek (1)	2.	Greek (1)	2.	Greek (1)	2.
Ancient Art		Ancient Art		Ancient Art	
Physics (2)	3.	Physics (2)	3.	Physics (2)	3.
Mechanics and Heat		Electricity and Magnetism		Light and Sound	
Mechanical Eng. (23)	5.				
Materials of Construction					
Cadet Service		Cadet Service		Cadet Service	

THIRD YEAR

Architecture (3)	5.	Architecture (3)	5.	Architecture (3)	5.
Designing		Designing		Designing	
Architecture (4)	2.	Architecture (5)	3.	Architecture (6)	4.
Specifications		Decorations		Estimates	
Civil Engineering (15)	5.	Architecture (7)	5.	Architecture (8)	5.
Masonry		Heating		Designing	
Civil Engineering (20)	5.	Civil Engineering (9)	4.	Civil Engineering (21)	3.
Roof Trusses		Stereotomy		Surveying	

REQUIREMENTS FOR ADMISSION TO THE SHORT COURSES IN MINING, IN CLAY-WORKING AND CERAMICS, AND IN INDUSTRIAL ARTS

Applicants must be not less than sixteen years of age; and unless they are over twenty-one years of age must pass an examination in Arithmetic, Geography, Grammar and Orthography, or bring High School or other certificates for these branches.

Applicants who are over twenty-one years of age are admitted without examination.

SHORT COURSE IN MINING

The Short Course in Mining is especially designed for young men who have had a practical experience in mines, and wish to study Mine Surveying, Drafting, the problems of Ventilation, Drainage, Haulage, Mine Operating, etc., and also something of the sciences bearing upon their work, but have neither the time nor the preparation for a full college course. The first year is devoted to a thorough study of the elementary mathematics and sciences necessary to prepare the student for the practical work of the second year. The experience of the past eight years has shown beyond any doubt that any enterprising young miner can master the subject sufficiently well in the time assigned to materially increase his earning capacity and chances for promotion in his occupation.

Personal instruction is given, and it is made thoroughly practical and of such a character as to best adapt it to the needs of the individual student.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Mathematics (2)	5.	Mathematics (2)	5.	Mathematics (2)	5.
Algebra		Algebra		Algebra	
Mathematics (3)	5.	Mathematics (13)	5.	Mathematics (14)	5.
Geometry		Geometry		Trigonometry	
Physics (1)	5.	Physics (1)	5.	Geology (1)	5.
Elementary		Elementary		Phys. Geography	
Cadet Service		Cadet Service		Cadet Service	

SECOND YEAR

Drawing (1)	2.	Drawing (4)	3.	Drawing (2)	2.
Freehand		Draughting		Lettering	
Drawing (3)	3.	Geology (4)	5.	Metallurgy (9)	5.
Projections		Elementary		Mineral Chemistry	
General Chemistry (7)	5.	General Chemistry (13)	3.	Mine Engineering (3)	5.
Inorganic		Laboratory		Mine Operating	
Mine Engineering (1)	5.	Mine Engineering (2)	5.	Shop Work (2)	3.
Mine Surveying		Ventilation and Haulage		Forging	
Cadet Service		Cadet Service		Cadet Service	

SHORT COURSE IN CLAY-WORKING AND CERAMICS

The two-year or Industrial Course is designed to assist young men who have already been actively engaged in the Ceramic industries, and who, on account of mature years, or lack of means, or lack of previous educational advantages, are unable to avail themselves of the full and complete course, and yet who wish to increase their earning power or chances of promotion by fitting themselves for other than routine labor. The requirements for admission to this course are very low, and the work required throughout is much less severe than that of the four-year course; in fact anyone who is willing to really apply himself, can retain his membership in this class, but there is no place for any but those who are thoroughly in earnest, and poor work will not be accepted from those who are able to do good work.

In short, in this Industrial Course, the department recognizes its closest medium of communication with the wants of the clay industries, and it is intended to so maintain this course as always to render the greatest good to the greatest number.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows the statement of Courses.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Gen. Chemistry (7)	5.	Gen. Chemistry (7)	5.	Gen. Chemistry (12)	5.
Inorganic.		Inorganic.		Analytical.	
Physics (1)	5.	Physics (1)	5.	Geology (1)	5.
Elementary.		Elementary.		Phys. Geography.	
Mathematics (1)	5.	Mathematics (3a)	5.	Shop Work (2)	3.
Algebra.		Geometry.		Forging.	
				Shop Work (4)	2.
				Chipping and Filing.	
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

Ceramics (1)	5.	Ceramics (2)	5.	Ceramics (3)	5.
Analysis of Limestones, etc.		Analysis of Clays.		Analysis of Glazes.	
Ceramics (4)	5.	Ceramics (5)	5.	Ceramics (6)	5.
Gen. Principles.		Brick.		Pottery.	
Geology (2)	5.	Drawing (11)	5.	Geology (3)	5.
General.		Mechanical.		Economic.	
Cadet Service.		Cadet Service.		Cadet Service.	

SHORT COURSE IN INDUSTRIAL ARTS

This Course is primarily designed to extend the benefits of the same kind of training as that given in the four-year course in this subject to that class of young men who may be unable for any reason to undertake a course of four years' duration, but who aspire to become actively engaged in factory work. It has been the aim to give, in as condensed a form as possible, those studies which will most rapidly and easily be turned to practical account in manufacturing operations; such as drawing, shop work, use of machine tools, etc., together with a grounding in the physics and mathematics which underlie these operations.

The Course will be found most valuable to young men already engaged in factory work, who find themselves limited from rising in their work on account of lack of technical education.

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Drawing (1) Freehand.	1.	Drawing (1) Freehand.	1.	Drawing (1) Freehand.	1.
Drawing (8) Geometric.	2.	Drawing (8) Projections.	2.	Drawing (2) Lettering	2.
Mathematics (2) Algebra.	2.	Mathematics (2) Algebra.	5.	Mathematics (2) Algebra.	5.
Mathematics (3) Plane Geometry.	5.	Mathematics (13) Space Geometry.	5.	Mathematics (14) Trigonometry.	5.
Shop Work (1) Carpentry and Pattern Making.	3.	Shop Work (1) Carpentry and Pattern Making.	3.	Shop Work (2) Forging.	3.
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

Drawing (3) Projections.	3.	Drawing (3) Descriptive Geometry.	3.	Drawing (3) Shades, Shadows and Per.	3.
Industrial Arts (1) Tools and Machines.	3.	Industrial Arts (1) Tools and Machines.	3.	Industrial Arts (1) Tools and Machines.	3.
Physics (1) Elementary.	5.	Physics (1) Elementary.	5.	Geology (1) Phys. Geography.	5.
Shop Work (3). (4) Foundry and Chipping and Filing.	5.	Shop Work (5) Machine Work.	5.	Shop Work (6) Machine Work.	5.
Cadet Service.		Cadet Service.		Cadet Service.	

THE COLLEGE OF LAW

FOR ADMISSION¹

(Until September, 1901)

The following are the requirements:

1. *To the First Year*—Applicants for admission to the First Year must present satisfactory evidence (by teacher's certificate—High School, Academy or College diploma—or by examination) of having a good common school education, including *United States History*, *Civil Government* and a thorough training in *English Composition*.

2. *The Second Year*—In addition to the requirements for admission to the First Year, applicants for admission to the Second Year must present satisfactory evidence of having completed the work of the First Year or its equivalent.

3. *To the Third Year*—In addition to the requirements for admission to the Second Year, applicants for admission to the Third Year must present satisfactory evidence of having completed the work of First and Second Years, or its equivalent.

Students seeking a degree must, at the time of registration, present in addition to the requirements above mentioned satisfactory evidence of having completed a course of study, the minimum requirement of which is as follows:

Arithmetic, Civil Government, Geography, Grammar, History of the United States, Physical Geography, Physiology, Rhetoric, Physics, (Gage or an equivalent) *Geometry, Algebra* (Wentworth's elements or an equivalent); and, in addition, the equivalent of 75 hours per week for one term of 12 weeks (a total of 900 hours) chosen from any five or more of the following subjects, one at least being a Science and two at least being in History or Political Science (unless the applicant is especially permitted to offer approved substitutes): *Botany, Chemistry, English Constitutional History, English History, English Literature, French, Geology, General History, German, Greek, Latin, Logic, Physics, Political Economy, Psychology, Surveying, Trigonometry, United States Constitutional History*; provided, that not less than 65 hours for twelve weeks (a total of 780 hours) of this work shall be of collegiate or university grade. If this last mentioned work has been done by the candidate in a College or University of good standing, certificates of such institution will be accepted. In all other cases the candidate is subject to examination on the work required from this last group. In general, in the absence of satisfactory certificates, opportunity will be given for examination in any subject required for admission as above indicated. Blanks for applications for degrees will be furnished on request.

FOR ADMISSION

(On and after September, 1901)

The following are the requirements:

1. *Arithmetic, Descriptive and Physical Geography, English Grammar, and United States History*.

2. *English*—(a) *Composition and Rhetoric*. Each applicant will be tested as to his ability to write clear and correct English. The test will be the writing of two essays of about two hundred words each. The first essay will be upon a subject drawn from the candidate's observation or experience; as "A description of my native town," "The most remarkable person I ever met," "My reasons for seeking a University education." The second essay will be upon a subject drawn from the list of classics printed below.

¹An applicant for admission who may be somewhat in arrears in any given subject, will find opportunity to make up his work in the Columbus High Schools, which are fully accredited by the University.

The proper preparation for this requirement is sustained and regular practice in writing. The pupil should be afforded weekly practice in preparing written exercises—paragraphs, outlines, themes, reproductions and abstracts; and his written work should be corrected by the teacher and revised and rewritten by himself.

The pupil should be familiarized with those principles of Rhetoric which are most likely to help him in his composition work; such as the principles of sentential structure, outlining, paragraphing, and choice of words, as given in Keeler's English Composition, Hill's Elements of Rhetoric, or Genung's Outlines of Rhetoric. The study of specimens of bad English is not recommended; the time usually devoted to this may be better spent in memorizing and reciting notable passages of prose and poetry selected from works read entire by the class. Exercises in speaking from a topical outline previously prepared by the class are recommended for drill in expression and choice of words.

The subjects for the weekly written exercises should be so distributed that the pupil will have practice in the four types—description, narration, exposition and argumentation. Some of these subjects should be taken from the classics prescribed below and other classics, preferably by the same authors, prescribed for parallel or subsidiary outside reading by the class; but fully one-half of the subjects upon which the pupil writes during the preparatory course should be drawn from his own observation and experience, especially subjects in description and narration.

(b) English Classics—Questions will be set for the purpose of testing the applicant's knowledge of the subject-matter, form and substance, of the following books; with the plot, purpose, literary style and peculiarities, incidents, and characters of which the applicant should make himself thoroughly familiar.

1899. Chaucer's *The Knights Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Lowell's *The Vision of Sir Launfal*; Hawthorne's *The House of Seven Gables*. *

1900. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Macaulay's *Essay on Milton*; Burke's *Conciliation with the Colonies*.

1901. *Macbeth*; Burke's *Conciliation with the Colonies*; Macaulay's *Essays on Milton and Addison*; Milton's *Comus*, *Lycidas*, *L'Allegro*, *Il Penseroso*; Scott's *Ivanhoe*; Goldsmith's *Vicar of Wakefield*; Tennyson's *Princess*; Coleridge's *The Ancient Mariner*; Lowell's *The Vision of Sir Launfal*.

These or equivalent texts will require minute and critical study in class during at least one school year. The test here is the pupil's ability to analyze plot and character, to explain words, phrases and figures; to reproduce thought, to point out characteristics of style. Systematic class room study of the text themselves is the only adequate preparation. Literary history, literary biography and the comments of professional critics will not serve the purpose. The work in class should be intensive and disciplinary; there the distinction between the reading of literature and the study of classics should be sharply defined. Outside reading of other works, preferably by the same authors, is recommended, and should be prescribed as the basis of part of the composition work; but this general reading and composition work should not be regarded as an adequate substitute for the minute study of the few classics prescribed above, and will not be accepted as preparation for this part of the English requirement.

3. *Algebra*—Wentworth's or White's or Wells's Elements, complete.
4. *Botany*—Kellerman's Elementary Botany and Spring Flora.
5. *Civil Government*—Fiske or Thorpe preferred.
6. *Geometry, Plain and Solid*—Venable, Wentworth or Wells.
7. *History*—Either Myers' General History (or equivalent); or, if the teacher's training and the school library will warrant, Greek and Roman History on the topical method. A circular concerning the topical method will be sent on application.
8. *Physics*—Carhart and Chute, Gage, Avery, or Appleton.
9. Any two of the following languages, in the quantity indicated below, Latin, Greek, French or German, or any one of them and the group of subjects named under (c) below.

(a) *Latin*—Pronunciation (the Roman method); Grammar (an exact knowledge of the inflections is essential); Cæsar, the first four books of the *De Bello Gallico*; Cicero, six orations, including *Pro Lege Manilia*; Vergil, the first six books of the *Æneid*, with Prosody; Prose Composition, Daniell or Collar or Jones, entire.

(b) *Greek*—Grammar (Goodwin's preferred) and Prose Composition; or the first 100 lessons of White's Beginner's Greek Book. Reading: The first four books of Xenophon's *Anabasis*. At least two years should be devoted to this work.

(c) *French*—The whole subject of French Grammar. Applicants will be expected to read at sight easy French; and to translate correctly into French, simple English sentences. Two years ought to be given to this study, the first year being spent mainly on the Grammar with easy reading; the second devoted to reading good modern French, with grammatical analysis and exercises in writing. The texts read should be chiefly narrative and conversational prose; one or more prose comedies of the nineteenth (not the seventeenth) century should be included.

(d) *German*—Joynes-Meissner's or Thomas' Grammar is recommended. The essentials in these grammars should have been mastered thoroughly, *i. e.*, declensions of nouns and adjectives, pronouns, comparison of adjectives, prepositions, regular and irregular verbs and essentials of syntax. The following books or their equivalents must have been read (not less than 600 pages). Joynes' or Whitney's Reader; Hillern's *Höher als die Kirche*; Riehl's *Der Fluch der Schönheit*; Freytag's *Die Verlorne Handschrift, Gerstäcker Irrfahrten*.

(e) While the preferred requirement is that each candidate shall offer any two of the foregoing languages, he will be permitted to offer in place of one of the two the following group:

1. *Chemistry*—Williams' or Remsen's.
2. *Physiology*—Martin's (briefer course)

3. *English Literature*—Pancoast's Introduction to English Literature and an acquaintance with representative works in each period; or, English History, Montgomery.

In addition to the foregoing requirements for admission to the work of the College, *each candidate for a degree* must submit satisfactory evidence that he has successfully pursued a course of study equivalent to the first two years of any course leading to a degree in the College of Arts Philosophy and Science, of this University. Where this work has been done in a college or university of approved standing, the certificate of said college or university will be accepted. In all other cases the candidate will be subject to examination in such work.

COURSE IN LAW

FIRST YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
Elementary Law (including Domestic Relations).....	15	Agency.....	2
		Contracts.....	4
		Criminal Law.....	3
		Sales.....	2
		Torts.....	4
	15		15

TEXT BOOKS

First Semester—Elementary Law (Robinson, Walker and Blackstone).

Second Semester—Agency (Mechem); Contracts (Bishop); Criminal Law (Clark); Sales (Tiedeman); Torts (Cooley).

SECOND YEAR

FIRST SEMESTER	Credit hours	SECOND SEMESTER	Credit hours
Ballments.....	4	Construction of Contracts.....	2
Commercial Law.....	4	Evidence.....	2
Evidence.....	2	Partnership.....	2
Pleading.....	4	Pleading.....	2
Moot Court.....	1	Real Property.....	4
		Wills.....	2
		Moot Court.....	1
	15		15

TEXT BOOKS

First Semester—Ballments (Hale); Commercial Law (Tiedeman); Evidence (Underhill or Greenleaf); Pleading (Phillips).

Second Semester—Construction of Contracts (Jones); Partnership (Parsons); Real Property (Tiedeman); Wills (Schouler).

THIRD YEAR

FIRST SEMESTER		SECOND SEMESTER	
Circuit and Supreme Court Practice.....	1	Corporations (Private).....	2
Constitutional Law {	4	Corporations (Municipal) Negligence of.....	2
International Law {		Ethics	1
Corporations (Private).....	2	Federal Practice.....	2
Corporations (Municipal).....	2	Insurance	2
Equity Jurisprudence.....	4	Mortgages {	2
Probate Law.....	2	Suretyship {	2
Moot Court.....	1	Trial Practice.....	2
		Moot Court.....	1
	16		14

Thesis for graduation to count for two hours through second semester.

TEXT BOOKS

First Semester—Constitutional Law (Black); Private Corporations (Taylor); Municipal Corporations (Tiedeman); Equity Jurisprudence (Fetter).

Second Semester—Ethics (Sharswood); Insurance (Richards); Negligence of Municipal Corporations (Jones).

PURPOSE AND METHODS

It is the purpose of this College to furnish such legal training as will secure the most favorable judgment of the profession, and such as will fit students for practice in any part of the country.

The aim is to teach an accurate knowledge of the principles of the law, and to illustrate the application of these principles to the practical affairs of life—to teach students both to know and to apply the law. The instruction offered includes a Course containing three years of nine months each. It requires about fifteen hours of lecture and recitation work per week each year, and embraces all the elementary and practical studies necessary for admission to the Bar of any State administering the Common Law.

The methods of instruction combine the advantages of all approved systems and appliances—the text-book and recitation system, the lecture system, and the case system. Charts, outlines, analyses, essays, note-taking, oral and written lectures, reviews and examinations are used; and exercises are given in drafting contracts, abstracts, conveyances, wills, protests, mercantile contracts, pleadings, indictments, and other legal papers. Briefs, arguments in moot courts, etc., are required. Attention is given to the study and accurate analysis of leading cases.

GENERAL REGULATIONS

IRREGULAR STUDENTS

In special cases, students who have had part of the studies of the First Year and part of those of the Second Year, or part of those of the Second year and part of those of the Third Year, may be examined on whatever subjects they may select and may take part of the studies of both years, if the Faculty is satisfied that the applicants can do so to advantage. If candidates for a degree, such applicants must meet all the other requirements and have all the other qualifications of those seeking a degree.

SPECIAL STUDENTS

Persons wishing a knowledge of legal principles *for business purposes only*, but not intending to apply for a degree or to take a full course, may be admitted at any time as special students, and may avail themselves of such advantages of the College as they may deem expedient. Their convenience will not be taken into consideration in arranging classes, and they must make satisfactory arrangements as to fees, hours of recitation, etc., with the Dean.

ENTRANCE EXAMINATIONS

Entrance examinations, except for those seeking a degree, will not be technical; the object being to ascertain the results of previous training and practical capacity to appreciate the technical study of the law. All entrance examinations will be conducted in writing.

PRIOR READING OF LAW

Although prior reading of law is not required for admission, it is nevertheless very desirable; and it is to be hoped that in the near future this requirement for admission can be made. Before entering the College of Law, careful study of either Walker's American Law, Blackstone's Commentaries, Pomeroy's Municipal Law, Smith's Elements of Law, Powell's Analysis of American Law, Robinson's Elementary Law, or Baird and Babcock's Guide to the Law, will prove of great advantage.

It is believed, also, that all students will be greatly benefited by reading Bishop's First Book of the Law, Hoffman's Legal Studies, Sharswood's Law Lectures, Warren's Law Studies, Washburn's Lectures on the Study and Practice of the Law, or Reed's American Law Studies.

APPLICATIONS FOR DEGREES

At the time of registration all applicants who seek degrees should present their diplomas and certificates of work done. These certificates should state in detail the studies pursued, the text books used, the amount of work done in each study, the amount of time devoted to it, the date of the examination, and the rank or standing of the candidate in it. A copy of the course of study should accompany the certificate in all cases, and must accompany it where equivalents are offered. These statements should also be accompanied by information as to age, occupation, experience, and work done since leaving school. Blanks for application will be furnished on request.

EXAMINATIONS

Examinations are held from time to time to test the student's knowledge of the work he has gone over. They are usually written, but sometimes oral.

THESIS

Each candidate for a degree is required to prepare and deposit with the Faculty, at least six weeks before the end of the year of graduation, a thesis of not less than fifteen hundred nor more than five thousand words, exclusive of citations of authorities, upon some subject selected by himself with the approval of the professor giving instruction in that division of law from which the subject is chosen.

DEGREES

The degree of Bachelor of Laws (L.L. B.) will be conferred on all who, being twenty-one years of age and having met the requirements necessary for entrance for a degree, pass satisfactorily the examinations at the close of the Senior year, after having done at least one year's work in the College of Law at the University, and having presented a thesis acceptable to the Faculty.

The degree of Master of Laws will be conferred upon any one who has received the degree of Bachelor of Laws at this University, or other approved University or College, upon completing the studies of the Graduate year, and satisfactorily passing an examination therein, and presenting a satisfactory thesis; the subject of which has been chosen from the field included in the Graduate year.

CERTIFICATES OF WORK DONE

Those who have completed the studies of the College, but have not complied with the requirements for a degree, will be given an official certificate, showing the work done, and signed by the President of the Board of Trustees, the President of the University, and the Dean of the College of Law.

ADMISSION TO THE BAR

The regular Supreme Court examination for the admission to the bar is held on the second Tuesday in June of each year. Seniors, if eligible, are recommended to take this examination.

COURSE OF INSTRUCTION

The Course of Study is three years of nine months, or thirty-six weeks, each; covering about fifteen hundred hours of work. It is so arranged that each class will have an average of three recitations a day, of an hour in length, thereby doing the same amount of work that is done in a regular University course.

MOOT COURT

Second Year and Third Year students will have Moot Court, under the supervision of the Dean, throughout the year, not less than one hour each week. The object of Moot Court is to give practical insight into the conduct of trials, examination of witnesses, production of evidence, etc.

ADVANTAGES

LOCATION

Attention is called to Columbus as a place in which to study law. Here the Legislature meets. Here are the Supreme Court and Circuit Court; four branches of the Common Pleas Court, in almost daily session throughout the college year; the Probate Court, the County Commissioners, the City Court, the several Magistrates' Courts; also the U. S. Circuit and District Courts. All are easy of access from the College. "There is no place where law is learned so quickly and thoroughly as among the lawyers. No teaching is so effective as the object lessons of the trial of cases in court."

LIBRARIES

The following libraries are accessible to the student:

The Law Library of the College contains the Noble Law Library, the Emerson-McMillin Law Library, the Critchfield Law Library, and three sets of the Ohio and the Ohio State Reports; about 2,500 well selected volumes. It is shelved with the other Libraries of the University, in Orton Hall.

The University Library contains 25,000 volumes of very carefully selected books upon all subjects. This is quite complete in the more recent standard works upon history and political science, philosophy, etc. A good collection of the leading scientific, technical and literary magazines and journals is to be found here.

The State Law Library, of about 15,000 volumes—the largest and most complete Law Library in the State. It contains complete sets of the English Scotch, Irish, Canadian, United States, and State Reports, Statutes and Digests, as well as all the important text books and leading periodicals published. This library is located in the State House, and because of the small space available must be used with great care and discretion in order that all may be served. It is designed wholly for reference, and students are warned that they must not use the library rooms as a study room, and that the text books found here are to be used for reference only. No student is expected, nor will he be permitted, to use these books instead of providing himself with those required in the course.

The State Library, in the State House—a library of general literature, history science, biography, political and social science, philosophy, etc., comprising some 65,000 volumes. The leading magazines, journals, etc., are also to be found here.

The University Libraries are open from 7:30 A. M. to 9:30 P. M. during the five days in which the University is in session, and on Saturdays from 8 A. M. to 4 P. M. The State Law Library is open six days in the week, from about 8:30 A. M. to 5:30 P. M., with the exception of about an hour or an hour and a half at noon. The State Library is open six days in the week from 9 A. M. to 12 M., and from 2 P. M. to 5 P. M.; and when the Legislature is in session, from 7 P. M. to 9 P. M.

The City Library may also be used by students, under reasonable restrictions.

THE UNIVERSITY COURSES

Attention is called to the great advantage of attending a law school in close and vital connection with the University affording the means of a liberal, practical and technical education. Students who are disposed to work faithfully may, at the same time that they are acquiring a technical knowledge of the law, supplement their general education by joining University classes, in departments which they may elect, subject to the requirements for admission to such departments, without extra charge except for laboratory work. Not alone from the courses in History and Political Science, or from those in Mental and Moral Philosophy, should this work be selected, but also from the courses in Civil, Mine, Mechanical, and Electrical Engineering, from the courses in Anatomy and Physiology, Economic Geology, etc. To the average practitioner, there will come ten questions involving the principles of surveying or engineering to one of constitutional law or English history. Not a day passes in the litigation of the courts but that numerous questions of anatomy, physiology, surveying or engineering arise and are to be decided. Particular attention, therefore, is called to the technical courses offered by the University, which will be open to those in the College of Law who are able to take them without interfering with the required law work. The following departments offer courses which will prove beneficial to those who have not had such training as would enable them to take more technical work: Botany, Physiology, Physics, Civil Engineering, Mine Engineering, Chemistry (Toxicology), Geology, Philosophy, History, English.

EXPENSES

Each student of the University is required to pay an incidental fee of fifteen dollars a year, and in this College a tuition fee of forty-five dollars; a total of thirty dollars for each semester, which is payable at the beginning of each semester.

Good boarding and lodging, convenient to the University, can be obtained at from \$3.50 to \$5.00 per week.

For information as to the cost of text-books used, address L. T. Williams, Ohio State University, Columbus.

Please send names and addresses of law students, and requests for printed matter, to W. F. Hunter, Dean, 18 Board of Trade, Columbus, Ohio; or to the Executive office, Ohio State University, Columbus.

THE COLLEGE OF PHARMACY

FOR ADMISSION TO THE FOUR-YEAR COURSE¹

The following are the requirements:

1. *Arithmetic, Descriptive and Physical Geography, English Grammar, and United States History.*

2. *English*—(a) Composition and Rhetoric. Each applicant will be tested as to his ability to write clear and correct English. The test will be the writing of two essays of about two hundred words each. The first essay will be upon a subject drawn from the candidate's observation or experience; as "A description of my native town," "The most remarkable person I ever met," "My reasons for seeking a University education." The second essay will be upon a subject drawn from a list of classics which will be furnished on application.

The proper preparation for this requirement is sustained and regular practice in writing. The pupil should be afforded weekly practice in preparing written exercises—paragraphs, outlines, themes, reproductions and abstracts; and his written work should be corrected by the teacher and revised and rewritten by himself.

The pupil should be familiarized with those principles of Rhetoric which are most likely to help him in his composition work; such as the principles of sentential structure, outlining, paragraphing, and choice of words as given in Scott and Denney's *Composition-Rhetoric*. The study of specimens of bad English is not recommended; the time usually devoted to this may be better spent in memorizing and reciting notable passages of prose and poetry selected from works read entire by the class. Exercises in speaking from a topical outline previously prepared by the class are recommended for drill in expression and choice of words.

The subjects for the weekly written exercises should be so distributed that the pupil will have practice in the four types—description, narration, exposition and argumentation. Some of these subjects should be taken from the classics prescribed for 1897 and other classics, preferably by the same authors, prescribed for parallel or subsidiary outside reading by the class; but fully one-half of the subjects upon which the pupil writes during his preparatory course should be drawn from his own observation and experience, especially subjects in description and narration.

(b) *English Classics*—Questions will be set for the purpose of testing the applicant's knowledge of the subject matter, form and substance of the following books; with the plot, purpose, literary style and peculiarities, incidents, and characters of which the applicant should make himself thoroughly familiar:

1899. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII and XXIV; The Sir Roger de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Lowell's *The Vision of Sir Launfal*; Hawthorne's *The House of Seven Gables*.

1900. Chaucer's *The Knight's Tale*, or Dryden's *Palamon and Arcite*; Milton's *Paradise Lost*, Books I and II; Pope's *Iliad*, Books I, VI, XXII, and XXIV; The Sir Richard de Coverly Papers in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Scott's *Ivanhoe*; Cooper's *The Last of the Mohicans*; Macaulay's *Essay on Milton*; Burke's *Conciliation with the Colonies*.

¹An applicant for admission who may be somewhat in arrears in any given subject, will find opportunity to make up this work in the Columbus High Schools, which are fully accredited by the University.

1901. *Macbeth*; Burke's *Conciliation with the Colonies*; Macaulay's *Essays on Milton and Addison*; Milton's *Comus, Lycidas, L'Allegro, Il Penseroso*; Scott's *Ivanhoe*; Goldsmith's *Vicar of Wakefield*; Tennyson's *Princess*; Coleridge's *The Ancient Mariner*; Lowell's *The Vision of Sir Launfal*.

These or equivalent texts will require minute and critical study in class during at least one school year. The test here is the pupil's ability to analyze plot and character, to explain words, phrases and figures, to reproduce thought, to point out characteristics of style. Systematic class-room study of the texts themselves is the only adequate preparation. Literary history, literary biography and the comments of professional critics will not serve the purpose. The work in class should be intensive and disciplinary; there the distinction between the reading of literature and the study of classics should be sharply defined. Outside reading of other works, preferably by the same authors, is recommended, and should be prescribed as the basis of part of the composition work; but this general reading and composition work should not be regarded as an adequate substitute for the minute study of the few classics prescribed above, and will not be accepted as preparation for this part of the English requirement.

3. *Algebra*—Wentworth's or White's or Wells' Elements, complete.

4. *Botany*—Kellerman's Elementary Botany and Spring Flora or equivalent.

5. *Civil Government*—Fiske or Thorpe preferred.

Or *History*—Myers's General History.

6. *Geometry, Plane and Solid*—Venable, White, Wentworth, or Wells.

7. *Latin*—Pronunciation (the Roman method); Grammar (an exact knowledge of the inflections is essential); Cæsar, the first three books of the *De Bello Gallico*.

Or *German*—Joynes-Meissner's or Thomas' Grammar is recommended. The essentials in these grammars should have been mastered thoroughly, i. e., declensions of nouns and adjectives, pronouns, comparison of adjectives, prepositions, regular and irregular verbs and essentials of syntax.

The following books or their equivalents must have been read (not less than 600 pages). Joynes' or Whitney's Reader; Hillern, *Höher als die Kirche*; Riehl's *Der Fluch der Schönheit*; Freytag *Die Verlorene Handschrift*; Gerstäcker *Irrfahrten*.

For the present, the *German* required for admission may be begun at the University, but without University credits.

8. *Physics*—Carhart and Chute, Gage, Avery, or Appleton.

COURSE IN PHARMACY

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

Degree: Bachelor of Science in Pharmacy

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Chemistry (7)	5.	Chemistry (7)	5.	Chemistry (12)	5.
Inorganic		Inorganic.		Qualitative Analysis.	
Latin (1)	5	Latin (1)	5.	Latin (1)	5.
Pharmaceutical.		Pharmaceutical.		Pharmaceutical	
or		or		or	
German (1)	4.	German (1)	4.	German (1)	1.
Elementary		Elementary.		Elementary.	
Mathematics (14)	5.	Mathematics (15) (16)	5.	Mathematics (17)	5.
Plane Trigonometry.		Spherical Trigonometry.		Plane Analytics.	
		Algebra.			
Rhetoric (1)	2.	Rhetoric (1)	2.	Rhetoric (1)	2.
Paragraph Writing.		Theme Writing.		Prose Analysis.	
Cadet Service (men).		Cadet Service (men).		Cadet Service (men).	
Hygiene and Physical		Hygiene and Physical		Hygiene and Physical	
Training (women).		Training (women).		Training (women).	

SECOND YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Botany (6a) Systematic, Physiological.	5.	Botany (4) Medical.	2.		
Chemistry (4) Laboratory.	5.	Chemistry (4) Laboratory.	5.	Chemistry (4) Laboratory.	5.
German (2) Science Reading.	2.	German (2) Science Reading.	2.	German (2) Science Reading.	2.
Pharmacy (6) Gen'l Processes.	3.	Pharmacy (7) U. S. Pharmacopeia.	5.	Pharmacy (8) Dispensaries, etc.	5.
Physics (2) Mechanics and Heat.	3.	Physics (2) Electricity and Magnetism.	3.	Physics (2) Sound and Light. Metallurgy (2) Mineralogy.	3.
Cadet Service (men). Hygiene and Physical Training (women).		Cadet Service (men). Hygiene and Physical Training (women).		Cadet Service (men). Hygiene and Physical Training (women).	

THIRD YEAR

Pharmacy (9) Gen'l Processes.	5.	Pharmacy (10) Prescriptions.	5.	Pharmacy (11) Dispensaries, etc.	5.
Pharmacy (12) Materia Medica.	3.	Pharmacy (13) Materia Medica.	3.	Pharmacy (14) Mat. Medica & Thera.	3.
Physiology (1) Human Anatomy.	3.	Physiology (1) Physiology.	3.	Physiology (1) Physiology.	3.
		Physiology (8) Bacteriology.	2.	Physiology (5) Microscopy.	2.
Chemistry elective for the year—five hours.					

FOURTH YEAR

General Chemistry (8) Organic.	5.	General Chemistry (9) Laboratory.	5.	General Chemistry (9) Laboratory.	5.
Geology (2) General.	5.	Geology (2) General.	5.	General Chemistry (11) Toxicology.	4.
Pharmacy (15) Assaying.	5.	Pharmacy (17) General.	5.	Pharmacy (17) General.	5.
Thesis.		Thesis		Thesis.	
Elective, three hours through the year.					

THESIS

As a requisite for graduation each candidate must present an acceptable thesis embodying the results of special study and research. The subject must be within the field of Pharmacy, and must be announced to the President of the University (dependent upon the written approval of the proper authorities) not later than the beginning of the second term of the fourth year of the Course. The completed thesis must be submitted not later than the second Saturday before Commencement Day.

SHORT COURSE IN PHARMACY

FOR ADMISSION

Candidates for admission who are less than twenty-one years of age must be prepared in the common English branches. Teachers' certificates (in force), or credentials from approved schools, will be accepted in lieu of an examination.

CATALOGUE

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Chemistry (7) Inorganic.	5.	Chemistry (7) Inorganic.	5.	Botany (1) Elementary.	5.
Latin (1) Pharmaceutical.	5.	Latin (1) Pharmaceutical.	5.	Chemistry (12) Qualitative Analysis.	5.
Physics (1) Elementary.	5.	Physics (1) Elementary.	5.	Latin (1) Pharmaceutical.	5.
Pharmacy (6) General Processes.	3.	Pharmacy (7) U. S. Pharmacopeia.	5.	Pharmacy (8) Dispensaries, etc.	5.
Cadet Service (men).		Cadet Service (men).		Cadet Service (men).	
Hygiene and Physical Training (women).		Hygiene and Physical Training (women).		Hygiene and Physical Training (women).	

SECOND YEAR

Botany (6a) Systematic, Phys.	5.	Botany (4) Medical.	2.	Chemistry (11) Toxicology.	4.
Chemistry (4) Laboratory.	5.	Chemistry (4) Laboratory.	5.	Chemistry (4) Laboratory.	5.
Pharmacy (9) Phar. Chemistry.	5.	Pharmacy (10) Prescription Practice.	5.	Pharmacy (11) Dispensing Practice.	5.
Physiology (1) Human Anatomy.	4.	Physiology (1) Physiology.	3.	Physiology (1) Physiology.	3.
		Physiology (8) Bacteriology.	2.	Physiology (5) Microscopy.	2.
Cadet Service (men).		Cadet Service (men).		Cadet Service (men).	
Hygiene and Physical Training (women).		Hygiene and Physical Training (women).		Hygiene and Physical Training (women).	

COLLEGE OF VETERINARY MEDICINE

FOR ADMISSION¹

The following are the requirements :

I. For applicants for certificate of Veterinary Surgeon: *Arithmetic, Geography, and Grammar.*

II. For applicants who intend to become candidates for the degree of Doctor of Veterinary Medicine:

1. *Arithmetic, Grammar, and Descriptive and Physical Geography.*

2. *English Composition and Rhetoric*—Each applicant will be tested as to his ability to write clear and correct English. The test will be the writing of two essays of about two hundred words each. The first essay will be upon a subject drawn from the candidate's observation or experience; as "A description of my native town," "The most remarkable person I ever met," "My reasons for seeking a University education." The second essay will be upon a subject drawn from a list of classics which will be furnished on application.

The proper preparation for this requirement is sustained and regular practice in writing. The pupil should be afforded weekly practice in preparing written exercises—paragraphs, outlines, themes, reproductions and abstracts; and his written work should be corrected by the teacher and rewritten by himself.

The pupil should be familiarized with those principles of Rhetoric which are most likely to help him in his composition work; such as the principals of sentential structure, outlining, paragraphing, and choice of words. The study of specimens of bad English is not recommended; the time usually devoted to this may be better spent in memorizing and reciting notable passages of prose and poetry selected from works read entire by the class. Exercises in speaking from a topical outline previously prepared by the class are recommended for drill in expression and choice of words.

The subjects for the weekly written exercises should be so distributed that the pupil will have practice in the four types—description, narration, exposition and argumentation. Some of these subjects should be taken from the classics prescribed for 1897 and other classics, preferably by the same authors, prescribed for parallel or subsidiary outside reading by the class; but fully one-half of the subjects upon which the pupil writes during his preparatory course should be drawn from his own observation and experience, especially subjects in description and narration.

3. *History*—History of the United States, Johnson preferred.
4. *Latin or German*—One year.
5. *Physics*—Gage, Carhart and Chute, Avery, or Appleton.

¹ An applicant for admission who may be somewhat in arrears in any given subject, will find opportunity to make up this work in the Columbus High Schools, which are fully accredited by the University.

COURSE IN VETERINARY MEDICINE

NOTE—The figure in parenthesis following the name of each study indicates the number of that study in its department. A full description of department work follows this statement of Courses.

Degree: Doctor of Veterinary Medicine

FIRST YEAR

FIRST TERM	Credit hours	SECOND TERM	Credit hours	THIRD TERM	Credit hours
Ag. Chemistry (1) Principles.	5.	Ag. Chemistry (8) Organic.	5.	Ag. Chemistry (9) Applications.	5.
Physiology (1) Human Anatomy.	3.	Physiology (1) Physiology.	3.	Botany (1) Elementary.	5.
				Physiology (1) Physiology	3.
Physiology (4) Histology.	5.	Physiology (4) Histology.	5.	Physiology (4) Phys. Chemistry.	5.
Veterinary Medicine (11) Osteology.	5.	Vet. Medicine (12) Myology, etc.	5.	Vet. Medicine (13) Dissections, etc.	5.
Cadet Service.		Cadet Service.		Cadet Service.	

SECOND YEAR

Agriculture (8) Breeds of Live Stock.	4.	Agriculture (9) Stock Breeding.	4.	Agriculture (10) Stock Feeding & Hygiene.	4.
Pharmacy (12) Materia Medica.	5.	Pharmacy (13) Materia Medica.	5.	Pharmacy (18) Laboratory.	5.
Vet. Medicine (14) Gen. Pathology.	5.	Vet. Medicine (15) Gen. Pathology.	5.	Vet. Medicine (16) Special Pathology.	5.
Vet. Medicine (18) Surgical Diseases.	5.	Vet. Medicine (18) Surgical Diseases.	5.	Vet. Medicine (18) Surgical Diseases.	5.
Vet. Medicine (19) Clinic.	3.	Vet. Medicine (19) Clinic.	3.	Vet. Medicine (19) Clinic.	3.
Cadet Service.		Cadet Service.		Cadet Service.	

THIRD YEAR

Vet. Medicine (20) Special Pathology	3.	Vet. Medicine (21) Special Pathology.	3.	Vet. Medicine (22) Therapeutics.	5.
Vet. Medicine (24) Gen. Surgery.	5.	Vet. Medicine (25) Practice in Operating.	5.	Vet. Medicine (23) Obstetrics.	5.
Vet. Medicine (19) Clinic.	3.	Vet. Medicine (19) Clinic.	3.	Vet. Medicine (19) Clinic.	3.
Vet. Medicine (27) Meat Inspection.	5.	Physiology (6) Bacteriology.	3.	Vet. Medicine (26) Horse Shoeing.	5.
		Thesis.	2.	Thesis.	2.

THE SUMMER SCHOOL

By action of the Board of Trustees and of the Faculty, a Summer School has been established in the University and placed under the general supervision of the President and Faculty. The immediate supervision of the work of the school is vested in a committee of the Faculty, consisting of the President of the University a Dean of the Summer School, and the heads of departments which offer courses in the Summer School. The session of the Summer School of 1898 began June 20th and closed July 30th, covering a period of six weeks.

Copies of the Summer School Announcement for 1899, containing full information, may be had by addressing the Executive Office after April 1, 1899.

GENERAL STATEMENT

The courses of instruction outlined below were given in the Summer School of 1898. Each course is given if four students apply for it not later than noon of the first Wednesday of the session, unless a larger minimum number of students in the class is specified in the outline of the course. Other courses may be offered if there should be a call for them. Those who desire to engage in special advanced work under the guidance of the University should communicate with the heads of departments concerned.

Each student may select such of these courses as he may wish to take; but the amount of work required in each course is so great that students are advised not to undertake work in more than two departments, nor in excess of fifteen exercises each week. For such excess an extra fee of one dollar for each hour per-week will be charged.

Fees are payable in advance to the Treasurer of the Summer School. Students are admitted to classes only upon presentation of cards signed by the Dean and countersigned by the Treasurer. For three full single courses of five hours each week through six weeks, the fees are fifteen dollars. Many instructors will offer double courses, equal to one course through twelve weeks; and students are encouraged to take one such course, with one single course, and concentrate their work. Students who give their instructors satisfactory evidence that they can profitably carry more work may take a fourth course on the payment of an additional fee of five dollars.

The minimum total fee for any one person is fifteen dollars. No reduction will be made on account of loss of time by students.

Laboratory fees are extra; consult the outline of each course involving laboratory work. The fee for special advanced work is determined by the instructor.

Ten hour classes meet once on Monday and Saturday and twice on other days of the week; six hour classes, on every day of the week; five hour classes, on every day except either Saturday or Monday; four hour classes, on Tuesday, Wednesday, Thursday and Friday; three hour and two hour classes, on alternate days.

During library hours students of the Summer School can consult books in the library and use the reading room for reading and study under the same rules as those which apply to regular University students. There is no library fee.

Each head of department determines what (if any) credits in regular University courses in his department shall be allowed for work done in the summer school. Credit can be allowed only when the work is the same in kind and amount as in the University. For information as to this, and for fuller information respecting any of these courses, apply to the instructors.

The special features for last summer were the Library work, in most competent hands; the special work in Physiological Psychology, and in Child-Study; and the special training in Physical Culture, using the superb new Gymnasium.

The cost of living in Columbus is moderate. A furnished room with board can be secured, in homes conveniently near the University, for not to exceed three and a half dollars a week.

COURSES OF INSTRUCTION¹

In the following list of courses the number of "hours" indicate the number of class exercises each week, whether lectures, recitations or laboratory work.

BOTANY

- A. **Elementary Botany**—Single or double Course. Recitations, lectures, and laboratory work. Kellerman's Elementary Botany will be used as a text, and any one of the Manuals. Herbarium of fifty plants required. Those taking the double course will be required to make an additional herbarium illustrating the various classes of plants5 or 10 hours
- B. **Advanced Botany**—Special work in Systematic Botany, Experimental Physiology, or the Evolution of plants. Lectures and laboratory work. No text book required. Laboratory fee \$1.00 for single, \$2.00 for double course.....5 or 10 hours
- C. **Cytology and Special Methods**—Lectures and laboratory work. Karyolimesis and embryology, with special method of imbedding and staining material for original investigation. No text book required. Laboratory fee \$1.00 for single, \$2.00 for double course5 or 10 hours

CHEMISTRY

- A. **Principles of Chemistry**—Lectures... ..5 hours
- B. **Qualitative Analysis**—Laboratory fee \$4.00.....10 hours
- C. **Quantitative Analysis**—Laboratory fee \$4.00.....10 hours

ENGLISH COMPOSITION, LANGUAGE, RHETORIC

- A. **Teachers' Course.**—Lectures, conferences, prescribed readings, and reports on the teaching of composition, grammar and rhetoric in the secondary schools. Some of the subjects discussed will be as follows: Class-room method and procedure; the place of the text-book; plans for courses in the secondary schools; plans for lessons; the essay problem; the teacher's necessary equipment; how much grammar; school grammar against historical grammar; the relations between composition and the study of English Classics; the order of topics; the function of criticism; a review of the work of the Committee of Ten and of the English Conferences; a review of recent text-books. "Hinsdale's Teaching the Language Arts" will be used as a starting point for some of the discussions..... 5 hours

¹The courses for 1899 have not yet been determined. The courses printed herein are given to illustrate the general scope of the school. They cover the work done in 1898.

- B. **Practice Course**—Daily compositions, written for the most part in class, to be criticised closely by the instructor, and including the sketch, the criticism, the book review, the short story, the news article, and the brief and argument, with preliminary lecture on each of these types of composition. Text-book: Scott & Denney's Composition-Rhetoric. This course is equivalent to University course No. 51..... 5 hours
- C. **Analysis of Prose**—A study of specimens of English prose with reference to the principles of Rhetoric which they illustrate. Text-book: Genung's Rhetorical Analysis.

ENGLISH LITERATURE

- A. **Foundation Studies in English Literature**—A course for teachers consisting of lectures, with illustrative readings. Most of the lectures will deal with the books read and the way in which they should be studied with classes in the secondary schools. A few lectures will be given on the following subjects: The chief aim of the teacher of English Literature; class-room method and procedure; the order in which the prescribed English Classics should be studied; the function of histories of English Literature and of the English and German critics; plans for courses and lessons; a fair division of the time allotted to English..... 5 hours
- B. **Teachers' Course in Preparatory Classics**—In this course the classics appointed for the examination of 1899 will be studied, beginning with Scott's *Ivanhoe*. This Course is an enlargement of Course A, and is open only to those who take that course 5 hours
- C. **Teachers' Course in Shakespeare**—Beginning with the *Merchant of Venice* 5 hours

FRENCH

- A. **Elementary Course**—Survey of Grammar; rapid reading; drill in pronunciation. The object of this course is to furnish the beginner with the essentials of the language. Text book: Joyne's *Minimum French Grammar and Reader*..... 5 hours
- B. **Teachers' Course**—An advanced course for teachers and others possessing a reading knowledge of French. The work will include: (1) special training in pronunciation, conversation, dictation and translation from English into French to secure a practical command of the language; (2) lectures on methods of teaching French, and the teacher's equipment..... 5 hours

GEOLOGY

- A. **General Inorganic Geology**—Emphasizing especially Geographical and Lithographical Geology. Students will be encouraged to make and label rock collections. Excursions will be made to surrounding points for study of water action and ice action..... 5 hours
- B. **Historical Geology**—This course, which is supplementary to Course A, will include lectures and laboratory work, the latter predominating. The lectures will treat of the growth of the North American continent and the development of plant and animal life. The laboratory course will consist of study of typical groups of Ohio fossils..... 5 hours
- If desired, a short field excursion of two or three days will be made after the close of regular term.

GERMAN

- A. **Outline of German Grammar**—A comparative study of German and English Grammar, designed especially for teachers, and for more mature beginners who are at home in English Grammar. Reading of Gueber's "Märchen und Erzählungen." Double course.....10 hours
- B. **Reading of German Pedagogical Works**—This course is based upon the work done in Individual and Scientific Psychology. Some such book as Kéber's "Zur Philosophie der Kindersprache," or Lobisch's "Die Seele des Kindes," will be read. For advanced students only.... 5 hours
- C. **German Literature**—An outline course with supplementary reading; for students with one or more year's preparation..... 5 hours

GREEK

- A. **Elementary Course**—For beginners. Text-book: Gleason and Ather-ton's First Greek Book.
- B. **Xenophon's Anabasis**—Books I, II or III. Especially adapted for those who need to complete their preparation for college. Industrious and capable students may possibly arrange for a double course in Xenophon.
- Work satisfactorily done may be counted towards admission to the University.
- Those who wish to enter either class should send their names promptly to Professor J. R. Smith, 950 Madison Avenue, Columbus, Ohio.

HISTORY

- A. **American History**—Political History of the Colonies and of the United States. 1750-1820, Hart's "Formation of the Union" used as a basis. Recitations and lectures. Specially designed for teachers..... 5 hours

LATIN

- A. **Cicero's Orations**—With special emphasis upon grammatical forms, idiomatic translation, Latin Prose Composition, and Roman History. 5 hours
- B. **Vergil's Æneid**—With careful attention to poetic forms, prosody, mythology, Roman life and customs..... 5 hours
- If the demand warrants, a second class will be formed to do additional reading in Cicero or Vergil. Work satisfactorily done may be counted towards admission to the University.
- All who intend to enter this department should send their names with a statement of the subject desired to Professor F. B. Pearson, 363 West Seventh Avenue, Columbus, Ohio.

MATHEMATICS

- A. Courses will be offered in Algebra, Geometry, Trigonometry; also in such higher Mathematics for which there may appear sufficient demand. A special class will be formed for the critical examination of text-books in Mathematics used in the public schools of Ohio.

PHYSICAL TRAINING

- A. **Teacher's Course**—Sweedish gymnastics adaptable to public school work..... 5 hours
- B. A course of gymnastics progressing from the light free-hand work to elementary apparatus work. Gymnastic and out-of-door games..... 5 hours

PEDAGOGY

- A. **Individual and Genetic Psychology**—Lectures, demonstrations and seminars reviewing the studies of children and of adults with special reference to their relations to educational questions. Laboratory practice in testing the senses, motor ability, etc. A single course..... 5 hours

PHILOSOPHY AND PSYCHOLOGY

- A. **Psychology**—Dr. Scott. Text-book, lectures and discussions. For teachers and those intending to teach. A single course, one hour daily; or a double course, two hours daily5 or 10 hours
- B. **Physiological and Experimental Psychology**—Mr. Wissler. Lectures and demonstrations supplemented by laboratory practice. A general course aiming at an exposition of psychological, psychophysical and inductive methods of psychological research. A single course, one hour daily; or a double course, two hours daily. Laboratory fee \$1.00..5 or 10 hours

PHYSICS

- A. **Double Course**, in elementary Physics, either through Kinetics and Heat, or through Electricity, Magnetism, Sound and Light.....10 hours
- B. **Single Course**, in laboratory practice; along lines depending on ends in view.....5 hours
- C. **Double Course**, in laboratory, as above.....10 hours
- D. **Special Course**, to make up deficiencies in preparation or record in elementary Physics.
Fees in any single course, \$1.00

ZOOLOGY AND ENTOMOLOGY

- Vertebrate and Invertebrate Morphology**—Classes will be formed to suit applicants—as far as possible.
Other courses will be provided on demand.

SUMMER LIBRARY SCHOOL

This school was under the direction of Dr. G. E. Wire, formerly of Columbia College Library, New York, and lately of the Newberry Library, Chicago.

This school gave a fifteen hour course, one hour being devoted to cataloging, one hour to classification and one hour to other forms of library work. This class work was in the morning, leaving the afternoon for individual and practice work.

Under cataloging was considered, not only author and subject cataloging, but also accessioning, shelf-listing, preparation of books for the shelves and preparation of finding lists and special lists. Classification took up largely the decimal classification, but instruction was offered in the expansive classification.

The miscellaneous heads included book selection and buying, book binding and repair, purchase and care of periodicals, care of pamphlets and clippings, public document, stock-taking, arrangement and care of rooms, shelves, fittings and

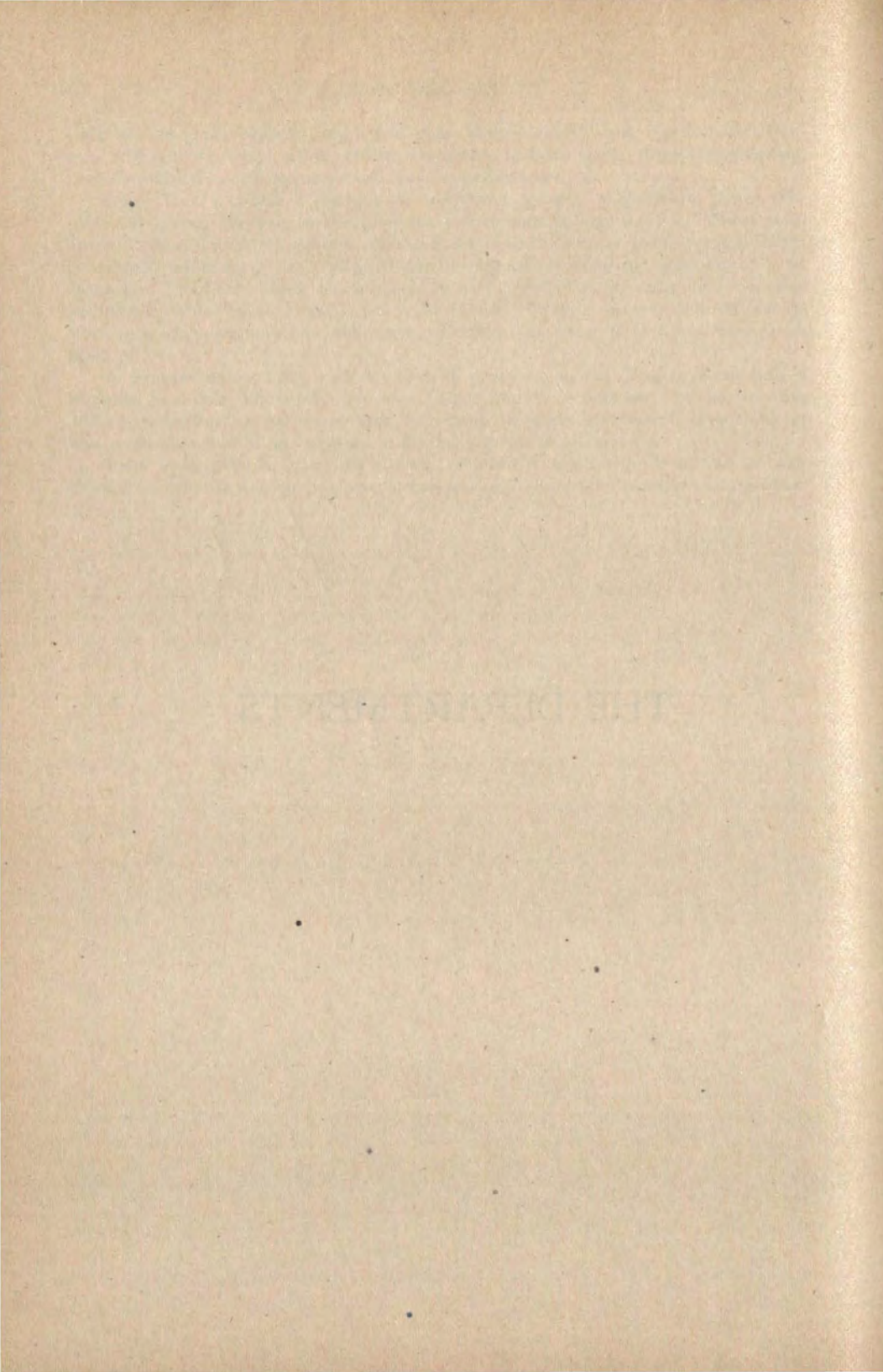
supplies, charging systems, stack and open shelves, rules and regulations, reference and reading room work, children's rooms, school work, library legislation, traveling libraries, library associations and periodicals.

To make the course of benefit to as many people as possible, those who intended taking the course specified what they particularly wanted. These preferences were considered, as it is the wish to benefit directly the largest number possible. Aside from the technical work, arrangements were made whereby all interested in library work received advice and instruction in their own peculiar problems. This was planned particularly for library trustees and officers of Women's Clubs, and others who were desirous of some help along their own lines of work.

A portion of each day was devoted to personal work. The Director had a separate hour for this work. In many cases the problems were of so peculiar and of so personal a nature as not to admit of class treatment. The director was accessible including lectures at least eight hours a day.

Fees were \$15 for the full course. Special rates for part of the course. Cataloging supplies, such as slips, accession and shelf list sheets were furnished.

THE DEPARTMENTS



The Departments

1898-99

The subjects set forth under each Department limit and define the administrative authority and responsibility of the head of that Department.

AGRICULTURE

Professor Hunt, Associate Professor Gibbs, Assistant Professor Noyes, Mr. Herrick, Mr. Ruhfen.

- 8.¹ **Breeds of Live Stock.** Lectures and recitations three times a week upon the history, characteristics, adaptation, care and management of the different breeds of domestic animals. Practicum once a week in scoring and judging live stock. First term.
9. **Principles of Breeding.** Lectures and recitations three times a week upon the laws of heredity and their practical applications. Practicum once a week in scoring and judging live stock, and in writing and tracing pedigrees. Second term.
10. **Stock Feeding and Hygiene.** Lectures and recitations three times a week upon the laws of nutrition, the character of food stuffs, the relation of the food to the animals, and the kind and quantity of food to produce given effects. Practicum once a week in calculating digestibilities, nutritive ratios and feeding standards. Third term.
11. **Farm Equipment.** Lectures and recitations three times a week upon selecting planning and equipping farms; planning and erecting farm buildings and fences; building roads; farm vehicles and machinery; power, water and drainage. Practicum once a week in drawing plans of farms and farm buildings; leveling and laying drains; dynamometer tests of wagons and farm implements. First term.
12. **Soils.** Lectures and recitations three times a week upon the origin, formation, kinds, and physical properties of soils, and their improvement by cultivation, fertilization, drainage, and irrigation. Practicum once a week in laboratory testing physical properties of several soils, determining the relation of soils to heat, moisture, air, and fertilizers, and making mechanical analysis. Second term.
13. **Farm Crops.** Lectures and recitations three times a week upon the history, production, marketing, cultivation, and harvesting of farm crops. Practicum once a week with growing and dried specimens of farm crops, including grasses, clovers, and other forage crops. Third term.
14. **Animal Mechanics and Exterior.** Lectures and recitations three times a week upon animal mechanics, proportions, and the relation of the latter to specific uses. Practicum once a week in measuring animals and testing the value of given measurements for given purposes. First term.
15. **Butter Making and Cheese Making.** Recitations twice a week. Laboratory practice two half days each week in running separators, churning and working butter, making cheese, and testing and pasteurizing milk. Second term.

(1 These numbers are "finding numbers," and do not necessarily indicate the sequence of topics.

16. **History of Agriculture and Rural Economics.** Lectures and recitations upon the history of agriculture; present agricultural methods in various countries; cost and relative profits of various farm operations and systems. Four times a week. Third term.
5. **Dairy Farming.** Lectures once a week upon breeds, and upon feeding, breeding and selecting dairy stock; equipment and management of dairy farms. Practicum once a week in scoring and judging live stock, writing pedigrees, and calculating feeding standards. Second term.
3. **Butter making and Cheese Making.** Practice in running separators, churning and working butter, etc., making cheese and testing and pasteurizing milk. Four half days each week. Second term.
7. **Butter Making and Cheese making.** Lectures and recitations. Two hours each week. Second term.

AGRICULTURAL CHEMISTRY

Professor Weber and Mr. Vinson

1. **Principles of Chemistry and Chemical Nomenclature.** Lectures and text-book for three or four weeks, five times a week; then lectures twice a week on Chemistry of Non-metals, and laboratory practice three times a week. First term.
8. **Organic Chemistry.** Lectures twice a week; laboratory practice three times a week. Second term.
9. **Applications of Chemistry to Agriculture.** Lectures twice a week; laboratory three times a week. Third term.
4. **Laboratory.** Analysis of fertilizers, feed-stuffs, dairy products, fruits, vegetables, alcoholic liquors, etc. Five laboratory periods a week through the year.
7. **Chemistry of Milk and Milk Testing.** Twice a week. Dairy Course.
6. **Laboratory,** five times a week through the year.

AMERICAN HISTORY AND POLITICAL SCIENCE

Professor Knight, Associate Professor Siebert, Mr. Rightmire

HISTORY

Course 55 (or 56) must precede all other courses in American History, and those intending to take advanced courses in American History should take Courses 53 and 54 (English History) as early as possible in their course.

For those intending to do advanced work in European History, Courses 51 and 52, in the order named, should precede all other courses in European History, and must precede all except Courses 53 and 54.

FIRST SEMESTER

51. **General History of Europe to the Close of the Middle Ages.** Lectures, text-book and collateral readings. Thatcher and Schwill, *Europe in the Middle Age*. Three times a week. Two sections.
53. **Political and Constitutional History of England to the Accession of the Stuarts.** Lectures, text-book and assigned readings. Gardiner's *Student's History of England*. Three times a week.

55. **Political History of the United States.** Lectures, text-books and prescribed readings. Hart's *Formation of the Union*; Wilson's *Division and Re-Union*. Four times a week. This course is repeated in the Second Semester (as Course 56). Of students who are required to take this subject, those whose names begin with the letters from A to K will take it in the First Semester; others will take it in the Second Semester (as Course 56).
57. **History of Europe from 1789 to 1815.** The French Revolution. Lectures, recitations and collateral reading. Stephen's *Europe, 1789-1815*. Three times a week.
59. **Roman History and Institutions.** Lectures and text-book. Pelham, *History of Rome*. Twice a week.
61. **Pro-Seminary for Research Work in American History and Political Science.** Two hours a week (at one meeting).
All students who elect their Major Study in the department of American History and Political Science must take this course in the fourth year. Open, as elective, to other students, graduate and advanced undergraduate, on permission of the instructor.
63. **American Colonial History.** Lectures and quizzes upon lectures and assigned reading. Three times a week.
Given biennially. Not offered in 1898-99.
65. **Constitutional and Political History of the United States, 1850-1876.** Secession, Civil War and Reconstruction. Lectures and assigned readings. Three times a week.
Given biennially. Not offered in 1899-1900.

SECOND SEMESTER

52. **General History of Europe from the close of the Middle Ages to the French Revolution.** Lectures text-book and collateral reading. Duruy's *Modern History*. Three times a week. Two sections.
54. **Political and Constitutional History of England from the Accession of the Stuarts to the present time.** Lectures, text-book and assigned readings. Gardiner's *Student's History of England*. Three times a week.
56. **Political History of the United States.** Lectures, text-books and prescribed reading. Hart's *Formation of the Union*; Wilson's *Division and Re-union*. Four times a week. [This is a repetition of Course 55 and will be taken in the Second Semester by those students (of whom it is required) whose names begin with letters from L to Z.]
58. **History of Europe since 1815.** Lectures, text-book and assigned reading. Fyffe's *Modern Europe*. Three times a week.
60. **History of the Period of the Protestant Reformation.** Lectures and text-book. Hausser's *Era of the Reformation*. Twice a week.
62. **Pro-seminary for Research Work in American History and Political Science.** Two hours a week (at one meeting).

This is a continuation of Course 61, and is open only to those who have had Course 61. All students who elect their Major Study in the department of American

History and Political Science must take this course in the fourth year. Open, as elective to other students, graduate and advanced undergraduate, on permission of the instructor.

64. **Constitutional and Political History of the United States.** The Formative Period, 1776-1815. An advanced course. Lectures and assigned readings and investigations. Three times a week.
Given biennially. Not offered in 1898-99.
66. **Teacher's Course in United States History.** Two hours.
Open only to students in the fourth year who have had at least one course in Pedagogy. Will not be given unless elected by at least ten students.
68. **American Diplomatic History.** History of the foreign relations, policy and treaties of the United States. Lectures and special investigations. Three times a week.
Given biennially. Not offered in 1899-1900.

POLITICAL SCIENCE

FIRST SEMESTER

51. **International Law.** Lectures and text-book. A study of public international law and of the important modern treaties. Lawrence's *Principles of International Law*. Twice a week. Open only to those who have had Courses 51, 52 and 55 (or 56) in History.
Given biennially. Not offered in 1898-99.
53. **Political Institutions of the United States.** Lectures and recitations. A study of the origin and nature of the political institutions of the United States, and an analysis of the form and powers of the government. Bryce's *American Commonwealth*; Burgess's *Political Science*. Three times a week. Open only to students who have had History 55 or 56.

SECOND SEMESTER

52. **Municipal Government.** Lectures and collateral reading. A study of the development and status of modern municipalities, and a comparative study of recent American municipal charters. Twice a week.
54. **Comparative Political Institutions of Europe and America.** Lectures, recitations and collateral readings. A comparative study of the political institutions and governmental forms and powers in the United States, England, Germany, France and Switzerland. Burgess's *Political Science and Constitutional Law*. Three times a week. Course 54 must be preceded by Course 53.

Courses 5 and 6 in History in the College of Agriculture and Domestic Science are the same as Courses 55 and 56 in History described above.

ANATOMY AND PHYSIOLOGY

Professor Bleile, Assistant Professor Van Harlingen, Mr. Dresbach

COLLEGES OF AGRICULTURE, PHARMACY, AND VETERINARY MEDICINE

1. **Human Anatomy and Physiology.** Lectures, recitations and laboratory work. Three times a week. First, second and third terms.
This course must be preceded by, or accompanied with, a course in chemistry.

2. **General Physiology.** Lectures, recitations and demonstrations. Three times a week. Third term. [Short Course in Agriculture.]
3. **Chemical Physiology.** Five times a week. Third term. [Domestic Economy Course.]
4. **Histology and Histo-Chemistry.** Five times a week through the year. This course must be preceded by, or accompanied with, a course in chemistry.
5. **Microscopy and Urinary Analysis.** Lectures and laboratory work. Twice a week. Third term.
6. **Bacteria,** in their relation to Milk, Butter and Cheese. Lectures and laboratory work. Twice a week. Second term.
7. **Bacteriology.** Three times a week. Second term. [Veterinary Medicine.]
8. **Bacteriology.** One lecture, one laboratory period, a week. Second term. [Pharmacy.]

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

First Semester

- 51¹. **Human Anatomy and Physiology.** Lectures, recitations and laboratory work. Three times a week.
53. **Physiological Laboratory.** Three laboratory periods a week.
55. **Physiological Laboratory.** Five laboratory periods a week.
57. **Bacteriology.** One lecture, one laboratory period a week.
59. **Histology and Histo-Chemistry.** Laboratory. Five laboratory periods a week.
61. **Bacteriology.** One lecture, two laboratory periods a week.

Second Semester

52. Continuation of Course 51. Three times a week.
54. Continuation of Course 53. Three laboratory periods a week.
56. Continuation of Course 55. Five laboratory periods a week.
58. **Microscopy.** Lectures and laboratory work. Twice a week. Last half of Semester.
60. Continuation of Course 59. Five laboratory periods a week.

ANCIENT ART

(See Greek Language and Literature.)

ARCHITECTURE

(See Drawing.)

ASTRONOMY

Associate Professor H. C. Lord, Mr. Maag

COLLEGE OF ENGINEERING

2. **Astronomy and Geodasy.** Lectures on practical Astronomy, supplemented by practice with the instruments of the Emerson McMillin Observatory. Text-book, Doolittle. Four times a week. Third and first terms.

¹ "Finding numbers" from 51 upwards always indicate Semester work.

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

52. **General Astronomy.** Lectures and recitations. Five times a week. Second half, second semester.
54. **Mathematical Astronomy.** Five times a week. Second semester. Consult Professor Lord.
- 55, 56. **Theoretical Astronomy.** Lectures and Observatory practice. The theory of the undisturbed motion of a planet or comet and the calculation of ephemerides. Parabolic orbits from three complete observations. Orbits from three complete observations, including the eccentricity. Work in the Observatory with the twelve-inch equatorial. Definitive orbits. Observatory work continued. Authorities: Watson, Klinkerfeus, Appolzer and the astronomical journals. Five times a week through the year.
- 57, 58. **Astro-Physics.** Lectures on the theory of the Spectroscope and its use in Astronomy, supplemented by practice with the large spectroscope of the Observatory. Five times a week through the year.
- Astronomy 55, 56, 57 and 58 are open only to students who have had Calculus.

BOTANY

Professor Kellerman, Mr. Schaffner

COLLEGES OF AGRICULTURE, PHARMACY AND VETERINARY MEDICINE

1. **Elementary Botany.** Lectures, recitations and field work. Text book: Kellerman's *Elementary Botany* and *Spring Flora*. Must precede all other courses in this department except course 9. Five times a week. Third term.
4. **Medical Botany.** Twice a week, second term. Similar to course 56 in the College of Arts, Philosophy and Science. Reference book: Maisch's *Organic Materia Medica*.
6. **Physiological Botany.** Lectures, recitations and laboratory work. Barnes' *Plant Life*. Five times a week. First term.
- 6a. **Systematic and Physiological Botany.** Lectures, recitations and laboratory work. Barnes' *Plant Life*. Five times a week. First term.
7. **Physiological and Economic Botany.** Lectures, recitations and laboratory work. Barnes' *Plant Life*. Five times a week. Second term.
8. **Vegetable Pathology.** Lectures, recitations and laboratory work. Five times a week. Third term.
9. **Dendrology.** Lectures, field and laboratory work. Twice a week, first term. Open to students who have not studied Botany.

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

FIRST SEMESTER

51. Similar to Course 1 in college of Agriculture.
53. Similar to Course 6a in the College of Agriculture. Four times a week.
55. **Systematic and Physiological Botany.** Lectures, recitations, laboratory and field work. Barnes' *Plant Life*. Four times a week.
57. **Laboratory work.** Fungi, Algae, Bryophyta. Two or three time a week.
59. **Advanced Laboratory Work in Histology and Physiology.** Five times a week. Open students who have taken Course 53 or 55.

61. **Systematic Botany, Phenogamic and Cryptogamic.** Three to five times a week. Open to students who have taken Course 53 or 55.
63. **Monographic Work.** Graduate Course. Credit five or ten hours.
65. **Research Work in Morphology and Physiology.** Graduate Course. Credit five or ten hours.

SECOND SEMESTER

56. **Medical Botany.** Laboratory work. Maisch's *Organic Materia Medica*. Twice a week. First half of semester. This course must be preceded by course 53.
58. Continuation of Course 57. Pteridophyta, Gymnospermae, Angiospermae. Two or three times a week.
60. Continuation of Course 59. Five times a week.
62. Continuation of Course 61. Three to five times a week.
64. Continuation of Course 63. Credit five or ten hours.
66. Continuation of Course 65. Credit five or ten hours.

CHEMISTRY

*Professor McPherson, Professor Norton, Assistant Professor Foulk, Mr. Fisher
Mr. Clements*

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

FIRST SEMESTER

51. **Elementary Chemistry.** Arranged for students who have little or no knowledge of Chemistry. Three sub-divisions; one lecture, one quiz, and three hour's laboratory practice weekly. In the laboratory the student performs an extended series of experiments illustrating the principles of Chemistry. Three hours credit.
53. **Qualitative Analysis.** Laboratory, lectures and quiz. Students familiarize themselves with the properties of the elements with a view to their detection, and then apply this knowledge to analysis of unknown substances. Three to five times a week. This course must be preceded by courses 51 and 52.
55. **Quantitative Analysis.** Laboratory, lectures and recitations. Use of the balance and general principles of gravimetric analysis. Drill in the solution of problems in quantitative analysis; study of properties of precipitates; principles of volumetric analysis. Selections are made from such analytical methods as best meet the needs of the students. The samples used for analysis are mixtures or commercial products the percentage composition of which is not made known to the student until he has reported his own results. Five times a week.
57. **Organic Chemistry.** Laboratory, lectures and recitations. Open only to students who are familiar with at least the principles of quantitative analysis. Five times a week.
59. **Advanced Chemistry.** Laboratory. Arranged for special students who have had courses 53, 54, 55, 56, 57; also course 58 for students in Organic Chemistry. Students are allowed to select such work as they are capable of undertaking—as, the critical examination of analytical methods as well as the study of new methods. Five times a week.

- 61a. **Inorganic Preparation.** Laboratory. This course includes the preparation of inorganic substances from the crude materials. Special attention is given to the preparation of chemically pure compounds, to be used in certain quantitative processes. Thorpe's text book on Inorganic Preparations is used, and reference is made to Bender and Erdmans' *Anorganische Preparate* and Krauche's *Prufung Chemischer Reagentien*. This course must be preceded by quantitative analysis. Four times a week until the Christmas Recess.
Students electing this course must follow with theoretical chemistry and sanitary analysis.
- 61b. **Theoretical Chemistry.** Lectures and recitations. A course of twelve weeks beginning after the Christmas Recess. Four times a week.
63. **Chemical Seminary.** Special students will meet to discuss special topics and reviews of current literature. Once a week.
65. **Electrolytic Analysis.** Laboratory. Extended practice is given in quantitative electrolytic analysis. Twice a week. (Not given in 1897-1898.)

SECOND SEMESTER

52. Continuation of Course 51. Three hours' credit.
54. Continuation of Course 53, including use of Spectroscope.
56. **Quantitative Analysis.** Continuation of Course 55. Five times a week.
58. **Organic Chemistry.** Laboratory. Continuation of Course 57. Arranged for students who wish to specialize in organic chemistry. The course includes further preparation of typical organic compounds; organic combustions and the determination of vapor densities. Five times a week.
60. Continuation of Course 59.
64. Continuation of Course 63.
66. Repetition of Course 55.
68. **Sanitary Analysis.** Laboratory and Lectures. A study of the most important chemical methods for the analysis of water and air. This course must be preceded by quantitative analysis, and at least the equivalent of Course 61 in Anatomy and Physiology (bacteriology.) The course extends over the last ten weeks of the second semester.
Students who can elect but one year of Analytical Chemistry, will take Course 53 and 66. Others will take 53 and 54, then follow with 55, 56 and 57.

COLLEGES OF ENGINEERING AND PHARMACY

7. **Elementary Chemistry.** Inorganic. Lecture, Laboratory and Quiz. Laboratory work; First Term, experiments upon the non-metals; Second Term, principles of qualitative analysis. Five times a week. First and Second Terms. (All four-year Engineering Courses, and long and short Courses Ceramics, Mine Engineering and Pharmacy.)
12. **Qualitative Analysis.** Five times a week. Third term.
13. **Qualitative Analysis.** Three laboratory periods a week. Second term. (Short Course in Mine Engineering.)
4. Similar to Courses 55 and 56. Five times a week through the year.

8. **Organic Chemistry.** Lectures. Five times a week. First term.
9. **Organic Chemistry.** Laboratory. Similar to Course 58. Five times a week. Second and third terms.
11. **Toxicology.** Lectures. Poisons—their effects, antidotes and detection. Four times a week. Third term.
14. **Theoretical Chemistry.** Lectures and Recitations. Three times a week. Second term.
15. **Sanitary Analysis.** Similar to Course 68. Four times a week. Third term.
16. **Applied Chemistry.** Lectures on Industrial Chemistry. These are made as practical as possible by visits to different chemical works. When possible specialists deliver lectures on subjects belonging to their particular line of work. Three times a week. Second term. (This Course not given in 97-98.)
7. **Inorganic Preparations.** Similar to Course 61. Four times a week. First term.
For Courses in the technical analysis of iron, steel and allied products, see the department of Mining and Metallurgy.
For Courses dealing with the application of Chemistry to Agriculture, see the department of Agricultural Chemistry.

CIVIL ENGINEERING

Professor Brown, Assistant Professor Sherman

1. **Land Surveying.** Recitations and field work. Johnson's Theory and Practice of Surveying. Six times a week. First term. Second year.
2. **Railroad Surveying.** Recitations and field work. Searle's Field Engineering. Six times a week. Third term. Second year.
3. **Topographical Surveying.** Lectures, field work and drawing. Johnson's Surveying used for reference. Four times a week. First term. Third year.
4. **Topography.** Platting, pen and tinted work. Reed's Topographical Drawing and Sketching. Four times a week. Second term. Second year.
5. **Working Drawings in Railway Construction.** Lectures and drawing and estimates of simple structures. Three times a week. Second term. Third year.
6. **Stereotomy.** Recitations, drawing and model cutting. Warner's Stereotomy. Four times a week. Second term. Third year.
7. **Bridge Strains.** Recitations and lectures. Part I of Dubois's Strains in Framed Structures. Five times a week. Third term. Third year.
8. **Bridge Designing.** Lectures and drawing. Part II of Dubois's Strains in Framed Structures and Johnson's Modern Framed Structures used for reference. Five times a week. First term. Fourth year.
10. **Sanitary Engineering.** Lectures. Five times a week. Third term. Fourth year.
14. **Civil Engineering Laboratory.** Cement testing, adjustment of instruments. Twice a week. Second term. Fourth year.

15. **Masonry Construction.** Recitations and lectures. Baker's Masonry Construction. Five times a week. First term. Fourth year.
16. **Highways.** Lectures on roads, streets, canals, railroads and rivers. Five times a week. Second term.
Fourth year students in Civil Engineering must elect either 16 or 17.
17. **Railway Location.** Recitations and lectures. Wellington's Economic Theory of Railway Location. Five times a week. Second term.
Fourth year students must elect either 16 or 17.
18. **Water Supply.** Recitations and lectures. Fanning's Water Supply. Five times a week. Third term. Fourth year.
19. **Trusses.** Lectures and drawing. Five times a week. Third term.
Third year, Mine Engineering and Mechanical Engineering.
20. **Roof Trusses.** Lectures and drawing. Five times a week. First term.
Third year, Architecture.
21. **Surveying.** Recitations and field work. Davies' Surveying. Three times a week. Third term.
Third year, Architecture.

CLAY WORKING AND CERAMICS

Professor Edward Orton, Jr., Mr. Bleininger

1. **Quantitative Analysis of Simple Minerals.** This course is open only to those who have completed General Chemistry 12. This student begins the quantitative analysis of salts and chemicals, and later works on limestone and other easy minerals. Five times a week. First term.
2. Continuation of Course 1. The student begins the quantitative analysis of clays and complex minerals, working first on samples of known composition, and later on unknown materials. Five times a week. Second term.
3. Continuation of Course 2. The student completes the ultimate analysis of clays, and begins the proximate or "Rational" analysis of clays and pottery bodies, following the methods of Seger. Five times a week. Third term.
4. **A series of lectures** (supplemented by frequent recitations) on the origin, composition and properties of clays and other minerals employed in the clay, glass, and cement industries. Five times a week. First term. Laboratory work in the physical testing of clays, and in their mechanical analysis.
5. Continuation of Course 4. A series of lectures, with recitations, on the general principles of the manufacture of bricks and the coarser clay wares, including the selection and winning of the materials, their preparation, manufacture, burning and testing. Five times a week. Second term.
6. Continuation of Course 5. A series of lectures, with recitations on the classification and manufacture of pottery and the finer grades of clay wares, including the selection of the materials, preparation of the bodies, manufacture of the ware, preparation of the glazes, burning and decoration of the wares, and the pyrometry of ceramics. Five times a week. Third term.

7. Continuation of Course 3. Open only to those who have completed that course. The analysis of glasses and glazes, devoting special attention to the use of hydrofluoric acid in silicate analysis, and to the determination of lead and boracic acid. Five times a week. Second term.
8. Continuation of Course 7. The further analysis of colored glasses and glazes, enamels, and ceramic colors, especial attention being given to the determination of the coloring and opacifying oxides. Five times a week. Third term.
9. **Laboratory work in Ceramics.** Open only to those who have completed Courses 3 and 6. The student will first undertake the production of such wares as are made from single clays, such as bricks for building and paving purposes; then those wares whose bodies are made by blending two or more natural clays, such as firebrick and refractory materials, earthenwares, stonewares, and yellow wares; and lastly, such wares as are made by the building up of an artificial body, such as is used in the production of white wares, porcelain, and in glazed and encaustic tiles. In each case the bodies made will be made into appropriate wares, burnt, and tested as to quality. Five times a week. First term.
10. Continuation of Course 9. The student will practice on the production of glasses and glazes, beginning with the natural "slip glazes," and taking successively the soft raw-lead glazes, the fritted lead-boracic-acid glazes, and the hard-fire leadless porcelain glazes. In each case the glazes will be made for use on some definite body, and will be made to "fit" it accurately. Five times a week. Second term.
11. Continuation of course 10. The student will practice on the use of the coloring and opacifying oxides on glazes, and on the production of vitrifiable colors for the underglaze and overglaze decoration of pottery, and in the production of body-stains for encaustic wares. Five times a week. Third term.
12. A series of lectures on the manufacturing and testing of natural and Portland cements and hydraulic silicates. Open to students who have had courses 3 and 6. Facilities for laboratory work in making, burning, and testing cements will be given. Five times a week. Second term.
13. Practice in making drawings and specifications for brick kilns, brick dryers, pottery kilns, gas producers, glass pot-furnaces, glass tanks, cement kilns, and burning cylinders. Students will be allowed to specialize along the lines they intend to follow. Twice a week. Second term.
14. **Mineral Reports.** A series of lectures and recitations, with frequent quizzes on the prospecting and opening up of mineral properties, and in the inspection of factories and ceramic plants, with a view to recommending economic changes in them. Frequent trips will be made to the important clay-working centers of Ohio for field-work and practice in observation. Students will be allowed to specialize along their intended lines. Five times a week. Third term.
15. **Thesis.** A satisfactory thesis, involving original investigation and special study must be completed as a requisite for graduation. The subjects for these must lie inside the range of ceramic work, but can be made to follow the lines along which the student has been specializing.

DOMESTIC ECONOMY

Associate Professor Bowman, Mrs. James

1. One lecture (demonstrated when necessary) and three laboratory periods a week. Four hours credit. First term.

Lectures on

- (a) **Principles of Combustion**, utility and costs of fuels, construction of ordinary stoves and ranges and of the Aladdin Oven; practice in building, regulating and caring for a fire; the consideration of ancient and modern methods of cooking.

- (b) **Food Economics:**

Study and classification of Food principles:

{	Water
	Salts
	Carbo-hydrates
	Proteids
	Fats

Comparative nutritive values of foods. A vegetable diet considered. Baking powders, food adjuncts, beverages, filtration, laws regulating adulteration of foods and inspection of meats, the various methods of preserving foods.

- (c) **Study of Cuts of Meats** (demonstrated) and of carving.

Laboratory work.

General Cookery. Preparation of cereals, vegetables, soups, stews, fish meats and breads.

2. One lecture, three laboratory periods a week. Four hours credit. Second term. Lectures on

- (a) **General Marketing.**

- (b) **Comparative Nutritive Values**, and money values, of various foods. Study of charts and dietetic tables, preparation of dieteries.

- (c) **The Chemistry of the Human Body.** (1) Its composition. (2) The Chemistry of Digestion.

- (d) **The Effect of Cooking** upon the digestibility of foods. Necessity for a mixed diet.

- (e) **Waiting-maids Course** (4 weeks).

Laboratory work.

- (a) **General Cookery.** Preparation of entrees, croquettes, salads, pastry, puddings and sauces.

3. One lecture and three laboratory periods a week. Four hours credit. Third term.

Lectures on

First Aids to the Injured, and on general nursing.

Laboratory work.

- (a) **General Cookery.** Four weeks. Including cakes, desserts, frozen dishes, etc.; and the ordering, preparation and serving of a dinner to guests.

- (b) **Invalid Cookery.** Six weeks. Including the preparation of such dishes as may be healthful and appetizing during illness or convalescence.

4. One lecture, three laboratory periods a week. Four hours credit. First term. Lectures on

Household Economics:

- (a) The situation of a house, the planning and construction of a house from attic to cellar; light, heat, ventilation, water supply, plumbing, sewerage, disinfection.

- (b) The ordering of house-work.
- (c) Simple household accounts and bookkeeping.
- (d) Laundry work.

Laboratory work.

- (a) Canning, jellying, preserving, pickling, etc. Four weeks.
- (b) Chafing dish. Three weeks.
- (c) Laundry work. Five weeks. Washing, ironing, and general care of underclothing (silk, flannel and merino), linens, starched clothes, laces and embroideries.

5. One lecture, with two practice periods in sewing and one in millinery a week. Four hours credit. Second term.

Lectures on

Production and Manufacture of Cotton, wool, flax, silk, etc.; the choice and treatment of various materials; study of line, form, color and texture as applied to dressmaking and millinery. Artistic and hygienic dress considered.

Practice work

- (a) **Plain Sewing.** Practice in the different stitches, drafting and making white goods by hand and by machine.
 - (b) **Millinery.** Making bows, facing and finishing brims, trimming simple hats.
6. One lecture, with two practice periods in sewing and one in millinery a week. Four hours credit. Third term.

Lectures on

Historic Costumes illustrated.

Practice work.

- (a) **Sewing.** Drafting and making an unlined dress. Drafting and making a cloth skirt. Drafting, matching and making a striped house-jacket.
 - (b) **Millinery.** Making and trimming covered hats and bonnets, making a shirred hat.
7. One lecture with two practice periods in sewing and one in millinery a week. Four hours credit. First term.

Lectures on

Art and its Applications.

Practice work.

- (a) **Sewing.** Drafting and fitting waist linings. Drafting and making close fitting waist. Drafting and making princess gown.
 - (b) **Millinery.** Designing and making an evening hat or bonnet. Work with fancy straws and mourning goods.
8. One lecture with two practice periods in dressmaking and one in art needle work weekly. Four hours credit. Second term.

Lectures on

History of Domestic Art.

Practice work.

- (a) **Dressmaking.** Designing, drafting, fitting and making an evening gown and fancy waist.
 - (b) **Art Needlework.** Drawn work, lace work and simple embroidery.
- One lecture, with three practice periods in tailoring weekly. Four hours credit. Third term.

Lectures on

Art in the Household.

Practice work

Designing, Drafting and making of a tailor suit and lined jacket.

DRAWING

Associate Professor Bradford, Assistant Professor French, Mr. Lewis

1. **Freehand Drawing.** Practice and occasional lectures. Pencil, charcoal, pen and water-color drawing from copies, models and plaster casts. One drawing period a week, three terms, Industrial Arts. Two drawing periods a week, first term, Short Mining and Domestic Economy. Two drawing periods a week, first and second terms; all four-year Engineering Courses. Three drawing periods a week, three terms, Architecture.
2. **Lettering.** Practice and occasional Lectures. Two drawing periods a week, third term, Industrial Arts, and Short Mining. Three drawing periods a week, third term, Ceramics, Civil, Electrical, Mechanical and Mine Engineering, and Architecture. This Course must be preceded by Course 1.
3. **Mechanical Drawing.** Lectures or recitations, one period a week. Practice two periods a week. All Engineering, Industrial Arts, Architecture. Subjects: Orthographic, Isometric and Oblique Projection and elementary Working Drawings. First term. Lectures or recitations two periods a week. Practice one period a week, in Industrial Arts and in all Engineering Courses except Civil Engineering; three periods a week in Civil Engineering and Architecture. Subject: Descriptive Geometry. Second term. Lectures or recitations, one period a week. Practice, two periods a week in Engineering Courses; four periods a week in Architecture. Subject: Shades, Shadows and Perspective. Third term, in all four-year Engineering and Industrial Arts Courses and the Course in Architecture. First term in the Short Mining and Domestic Science Courses. This Course must be preceded by Course 2.
4. **Draughting and Blue-printing.** Practice and occasional Lectures. Three periods a week, second term. Arranged especially for the students in the Short Mining Course. This Course must be preceded by the first term of Course (3).
5. **Technical Drawing.** Lectures and Practice. Rules and methods for working drawings, tracing, blue-printing, machine design and practice in making same to represent form and dimensions for shop use. Three periods a week. First term, Mechanical and Electrical Engineering Courses. This Course must be preceded by Courses (2) and (3).
7. **Photography.** Lectures and Practice. Lectures: Optics of Photography, chemistry of photography, exposing and developing, printing, lantern slides, orthochromatic photography and some of the applications of photography. Practice in outdoor, interior, instantaneous and flash-light photography, copying, lantern slides, and printing. Two periods a week. Ceramics, Architecture, first term. Civil, Mechanical and Mine Engineering, third term. The first term of this Course is elective.
8. **Mechanical Drawing.** Lectures and Practice. Geometric and Projection Drawing. Two periods a week, first and second terms, Industrial Arts.
10. **Mechanical Drawing.** Lectures and Practice. Arranged especially for the students in Agriculture and Horticulture. Two periods a week, first term

11. **Mechanical Drawing.** Lectures and Practice. Arranged especially for the students in Short Course in Ceramics, five periods a week, third term.
12. **Clay Modeling.** Modeling in Clay and Casting in Plaster, ornamental forms from designs, photographs, nature and original designs. Two periods a week; first, second and third terms.
This Course must be preceded by Course 1.
Domestic Economy Course, second term. Architectural Course, second and third terms. This Course must be preceded by Course (1).
13. **Technical and Decorative Design.** Lectures and Practice. Lectures on the principles of decorative design in monochrome, color and relief, and practice in the same. Two periods a week; first, second and third terms.
14. **Pen drawing.** Two periods a week, first term. Arranged especially for the Course in Architecture. This Course must be preceded by Course (1).
15. **Technical Drawing.** Lectures and Practice. House Designing. Five periods a week, third term. Domestic Economy.

ARCHITECTURE

1. **Orders of Architecture.** Detail Drawing of the Orders, to accompany the study of Ancient Art. One lecture, and four practice periods a week, second term.
2. **Styles of Architecture.** Lectures and drawing of Architectural Details representing the characteristic styles in Architecture. One lecture, and four practice periods a week, third term.
3. **Designing.** Lectures and Designing of Architectural structures adapted to modern requirements. Five periods a week; first, second and third terms.
4. **Specifications.** Lectures and Practice in preparing specifications for Architectural Structures. Two periods a week, first term.
5. **Decoration and Ornament.** Lectures. The practice part of this Course will be incorporated in Courses (3) and (8). Three periods a week, second term.
6. **Estimates.** Lectures and Practice in preparing estimates for structure designed in Courses (3) and (8). Four periods a week, third term. The duties of a superintendent will be considered in this Course.
7. **Heating and Ventilating.** Lectures. The practical applications of this Course will be incorporated in Courses (3) and (8). Five periods a week, second term.
8. **Designing.** Lecture and Practice. Designing of buildings requiring steel and fire-proof construction. Five periods a week, third term.

ECONOMICS AND SOCIOLOGY

Associate Professor Clark

Course 51 or Course 52 must precede all other Courses.

FIRST SEMESTER

51. **Elements of Political Economy.** A careful study of the laws of production, exchange, distribution and consumption of wealth; combined with an analysis of the industrial actions of men as regards land, labor, capital, money, credit, rent, interest, wages etc. Text-book, lectures and individual investigations. Two Sections. Four times a week. This Course is repeated in the Second Semester (as Course 52). Of students who are required to take the subject, those whose names begin with the letters L to Z will take it in the First Semester; others will take it in the Second Semester (as Course 52)

53. **The History of Industrial Society.** A general view of the evolution of industrial society; and a study of causes and effects of past economic policies together with their bearing on existing conditions; with special reference to England and America. Lectures and assigned readings. Twice a week. *Not offered in 1898-99.*
55. **Practical Problems in Economics.** A rapid study of immigration, money, railroads, crises and tariff. Lectures and collateral readings. Twice a week.
57. **The Transportation Problem.** A study of the development and present economic status of canals and railroads in their relation to industry and to the state. Lectures. Twice a week.
59. **Public Finance and Taxation.** This course aims to make the student acquainted with the theory of public revenue and expenditure; and with the leading systems of financial administration throughout the world. Municipal indebtedness and corporate financing are incidentally treated. Text book and lectures. Twice a week. *Not offered in 1898-99.*
61. **Seminary in Economics.** Two hours a week at one meeting. All students who elect their Major Study in Economics must take this course in their fourth year. Open, as elective, to other students, graduate and advanced under-graduate, on permission of the instructor.
63. **Sociology and Statistics.** Lectures and laboratory work. One hour credit. This course may accompany courses 55, 57, 59 or 65.
65. **Commercial Geography.** A scientific study of business relations and conditions, domestic and foreign; the sources, quantity and quality of products, and the distribution of the same; laws of markets, competition and of trade; methods of doing business in foreign countries; prices, tariffs, exchange, means of communication etc. The Consular Reports will constitute one basis of study. Texts and lectures. Twice a week. May be expected in 1899-00.

SECOND SEMESTER

52. **Elements of Political Economy.** Text-book, lectures and individual investigations. Two sections. Four times a week. (This is a repetition of Course 51, and will be taken in the Second Semester by those students (of whom it is required) whose names begin with the letters from A to K.)
54. **The History and Theory of Socialism.** Lectures and collateral readings. Twice a week. *Not offered in 1898-99.*
56. **Industrial and Social Reforms.** A study of labor problems, charities and corrections, monopolies, insurance, savings associations, etc. Lectures and collateral readings. Twice a week.
58. **Money, Credit and Banking.** This course involves the history and theory of the subject; a comparative study of monetary systems, currency, business paper, etc.; together with the methods of banking; national banks, clearing houses, sub-treasury, etc.; and a critical analysis of proposals for reform. Texts, lectures and collateral reading. Twice a week.
60. **Industrial and Financial History of the United States.** A complete survey of American industries, financial resources and policies; public lands, government subsidies, internal revenue, etc.; history and description of the Treasury and Interior Departments, the Mints, etc. Lectures and collateral readings. Twice a week. *Not offered in 1898-99.*

62. **Seminary in Economics.** Two hours a week at one meeting. This is a continuation of Course 61, and is open only to those who have had that course. All students who elect their Major Study in Economics must take this Course in their fourth year. Open, as elective, to other students, graduate and advanced under-graduate, on permission of the instructor.
64. **Sociology and Statistics.** A continuation of Course 63. One hour credit. May be taken separately or accompany Courses 56, 58 or 60.
- Courses 1 and 2 in the College of Agriculture and Domestic Science are the same as Courses 51 and 52 described above.

EDUCATION

Professor Gordy, Mr. Wissler

FIRST SEMESTER

51. **Elementary Educational Psychology.** This course is intended to be helpful to three classes of students: (1) Those who are not preparing to teach, but who wish to make some study of education in order that they may perform their duties as members of society more intelligently; (2) Those intending to teach and who wish to study the relations between Psychology and education; and (3) Those preparing to be superintendents and who wish to get suggestions as to the best method of teaching Psychology to teachers. The text used is Gordy's *Psychology*. Students will be required to do collateral reading and bring in reports of their work. Four hours a week.
53. **History of Greek Education.** Students of this course will make a study of the history of the education of the Greeks from the time when life was their only school to the time when Greece became the teacher of the world. The connection between Greek life and Greek education will be sharply emphasized; the defects of Greek ideals of life will be shown as reappearing in Greek ideals and methods of education, and these in turn as exerting an influence on Greek life. This course will be essentially a study of Greek civilization, but with the practical purpose of getting light for the solution of our own problems. It is believed that the course will be especially helpful to those preparing to teach history, and the classics. The texts used are Davidson's *Greek Education*, and Davidson's *Aristotle*. Readings are required of students in Greek history and Plato's *Dialogues*. Four hours a week.
55. **The Herbartian Pedagogy.** The object of this course is three-fold: (1) To ascertain what the Herbartian Pedagogy is; (2) To determine its truth, and (3) To consider carefully its applicability—so far as it is true—to the schools of this country. Special attention will be given to these Herbartian theories that are most widely current in this country. The texts used are Herbart's *Science of Education*, De Garmo's *Herbart* and Lange's *Apperception*. Four hours a week.
57. **The History of Education in the United States.** The object of the course will be not merely to follow the course of the history of education in this country but to study our educational practice in the light of true educational ideals. Each member of the class will be expected to make a special study during the year of the system of education of some state or city and repeat the results of his study to the class. Two hours a week.

59. **Child Study.** A course in individual and genetic psychology reviewing the studies of children and adults with special reference to their relation to educational questions. Later in the year. Seminary work; a study of some one central topic by all students of the course together with a special investigation by each member of the class. Two hours a week.

SECOND SEMESTER

52. **Modern Educational Theories.** These theories will be studied from three points of view; (1) As the expression of a certain philosophy of life; (2) From the point of view of this consistency; and (3) from that of their truth. The text is *Quick's Educational Reformers*. Four hours a week.
54. **Plato's Republic.** This course is essentially Seminary work for the benefit of those students of course 53 who wish to make a close and critical study of Plato's *Philosophy of Government and Education*.
56. **The Kindergarten.** This course is intended especially for those who are preparing to do kindergarten and primary work, and for those who are preparing to be superintendents of schools. The texts used are Bowen's *Froebel* and Miss Blow's *Symbolic Education*. Two hours a week.
58. **The Philosophy of Education.** This course aims to make a systematic exposition of the philosophy of education. It is intended to be of benefit to all those who wish to know the ideals which education should seek to realize, and the means which should be employed in their realization. The text is Laurie's *Institute of Education*. Four hours a week.
60. **The History of Education in the United States.** This course is a continuation of 57. Two hours a week.
62. **Problems in Supervision.** This course aims to give special attention to the questions with which superintendents have to deal—questions of promotion, school organization, school government and the like. Two hours a week.
64. **Educational Value.** This course seeks to determine the capacity of the various subjects studied in elementary and secondary education to contribute to true educational ideals. The text is *Fouillee's Education* from a National standpoint. Two hours a week.
66. **Child Study.** A continuation of 65. Two hours a week.

ELECTRICAL ENGINEERING

Associate Professor Caldwell, Mr. Fish

2. **Electrical Engineering.** Lectures, Recitations and Problems. Theory of dynamo-electric machinery, including direct current and alternating current generators and motors; methods of regulation and control; circuits, lamps and auxiliary apparatus; storage batteries; applications of electricity to street car and mine working; design, construction, and management of plant. Five times a week. First, second and third terms.
3. **Electrical Designing.** Including D. C. and A. C. generators and motors, transformers, distribution, etc. Three times a week, through the year.
4. **Electrical Laboratory.** A full experimental course in the handling and testing of generators, motors, storage batteries, circuits, etc. Three half days a week. First, second and third terms.

6. **Electrical Engineering.** Lectures on direct and alternating circuits, dynamo machinery, transformers, accumulators and applications. Twice a week. (First and second terms of fourth year of Civil, Mining and Mechanical Engineering Courses.)
7. **Electrical Engineering.** Laboratory work on the subjects treated in Course 6, which it accompanies. Twice a week. (First and second terms of fourth year in Civil, Mining and Mechanical Engineering Courses.)

ELOCUTION AND ORATORY

Professor Fulton

The work in this department is given in lectures, recitations and collateral readings. Courses 51 and 52, in the order named, must precede all other courses. Each class in 53 and 54 is limited to 20 students who have completed their first year of residence; and 55 and 56, also limited to 20 students, are offered only to third and fourth year residents who are taking or have taken English Literature 57 and 58. For a fuller statement of the courses and the texts used see the departmental bulletin for this year.

FIRST SEMESTER

51. **Elocution.** Twice a week.
53. **Literary Analysis, Argumentation and Debates.** Twice a week.
55. **Shakespeare and the Drama.** Twice a week.

SECOND SEMESTER

52. **Elocution** continued. Twice a week.
54. **Oratory.** Twice a week.
56. **Shakespeare and the Drama** continued. Twice a week.

ENGLISH LITERATURE

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

Professor Barrows, Assistant Professor Taylor

FIRST SEMESTER

51. **An introduction to English Literature.** Four times a week. (Must precede all other courses in this semester.)
53. **Poetry from Spencer to Milton,** exclusive of the drama. Twice a week.
55. **The English Bible:** Old Testament. Once a week.
57. **Shakespeare.** Three times a week.
59. **The Novel.** Three times a week.
61. **From Dryden to Johnson.** Twice a week.
63. **Prose, from Cowper to Ruskin,** exclusive of Fiction. Three times a week.
65. **Masterpieces.** Three times a week.

SECOND SEMESTER

52. Repetition of Course 51. Four times a week. (Must precede all other courses in this semester.)
54. **Prose, from Spencer to Milton.** Twice a week.
56. **The English Bible: New Testament.** Once a week.
58. **The Drama,** from the Miracle Plays to the Closing of the Theatres. Three times a week.
60. **The Drama since the Restoration.** Twice a week.
62. **American Literature.** Three times a week.
64. **Poetry from Cowper to Browning,** exclusive of the Drama. Three times a week.
66. **Masterpieces.** Three times a week.
- Courses 65 and 66 are open to competent graduates, and to undergraduates who have taken all other Courses offered in the same semester.
- Courses 59, 60, 61 and 62 alternate with 53, 54, 63 and 64.

COLLEGE OF AGRICULTURE AND DOMESTIC SCIENCE—OR TERM COURSES

21. **Shakespeare.** Three times a week. First term. The same as 57, except that it is limited to the first term.
22. **American Authors.** Three times a week. Second term. Open to those who take course 23.
23. **American Authors.** Three times a week. Third term. Open to those who have taken course 22.
- Courses 22 and 23 together are the same as course 62, with a special introduction filling the first five weeks of the second term.
- All the Semester electives, from 53 to 65, are open to students who may wish to do a full year of work in this department, or who may wish to give one semester to this department and one to any other; but courses 21, 22, and 23 only can be elected by those who wish to take part of their work on one term plan. Course 52 is prerequisite to all elections.

ENTOMOLOGY

(See Zoology and Entomology)

EUROPEAN HISTORY

(See American History and Political Science)

GENERAL CHEMISTRY

(See Chemistry)

GEOLOGY

Professor Orton, Assistant Professor Bownocker

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE FIRST SEMESTER

51. **Cosmical Geology.** Lithological Geology, Dynamical and Structural Geology. Books of reference used in preparation of their work; Green's *Physical Geology*, Geike's *Text-book of Geology*, LeConte's *Elements of Geology*, Hunt's *Chemical Geology*, Daubree's *Geologic Experimentale*. Five times a week.

53. **Paleontology.** Museum work. Determination of groups of Ohio fossils.
55. **Petrography I.** Laboratory and lectures. Optical crystallography, with practical determination of rock-forming, macroscopically and microscopically. Study of the igneous rocks in the hand specimen and thin section. Twice a week. The Sturtz rock collection and Voight Hochgesang thin sections of typical minerals and rocks will be carefully studied. Books of reference: Mitchel Levy—*Les Minneaux des Roches*; Rosenbusch—*Mikroskopische Physiographie der Petrographisch Wichtigen Mineralien*, 3d ed.; *Mykroschpische Physiographie der Massigen Gesteine*, 2d ed.; Teall's *British Petrography*; Spottiswoode's *Polarization of Light*. Pre-requisites; Chemistry, 51 and 52; Metallurgy, 52 (Mineralogy and Crystallography.)

SECOND SEMESTER

52. **Paleontological Geology.** Historical Geology. Books of reference used by students in preparation of their work; Nicholson's *Paleontology*, Zittel's *Paleontologie*, *Ohio Geological Reports*, *Paleontology of New York*. Five times a week.
54. Continuation of Course 53.
56. Continuation of Course 55. Twice a week.
58. **Geographic Geology.** The origin, development, and destruction of topographic forms. Rivers, lakes, oceans, ice, and winds as agents modifying the surface of the earth. The great ice age in North America. Books of references; *Journal of Geology*; *American Geologist*; *The great Ice Age*; (Geike's) *The Ice Age in North America*; (Wright) *The Reports of the United States Geological Survey*; *The maps of the Mississippi River Commission*; etc. Five hours per week. Lectures, Recitations, map work. Third term.

COLLEGES OF AGRICULTURE, ENGINEERING AND PHARMACY

1. **Physical Geography.** Lectures and Recitations. Geikie's *Elementary Lessons*, supplemented by lectures, map drawing, and the study of geographical models. Five times a week. Third term.
2. **General Geology.** Cosmical Geology, Lithological Geology, Dynamical and structural Geology. Books of reference used by students in preparation of their work: Green's *Physical Geology*, Geikie's *Text Book of Geology*, LeConte's *Elements of Geology*, Hunt's *Chemical Geology*, Daubree's *Geologic Experimentale*. Five times a week. First term.
- Paleontological Geology, Historical Geology. Books of reference used by students in preparation of their work: Nicholson's *Paleontology*, Zittel's *Paleontologie*, *Ohio Geological Reports*, *Paleontology of New York*. Five times a week. Second term.
3. **Economic Geology.** Lectures. Economic materials of stratified rocks, clays, limes, cements, coals, iron, ores etc., phosphates, petroleum. Economic materials derived from veins and igneous rocks, gold, silver, copper, mercury. Gems. Books of reference used by students in preparation of their work: *Publications of U. S. Geological Survey*, *State Geological Surveys*, Phillips' *Ore Mining*. Five times a week. Third term.
4. **Elementary Geology.** Lectures and Recitations. Text-book: LeConte's *Class Book of Geology*. Five times a week. Second term.

GERMANIC LANGUAGES AND LITERATURES

Professor Eggers, Assistant Professor Mesloh

COLLEGES OF ARTS, PHILOSOPHY AND SCIENCE

FIRST SEMESTER

51. **Elementary German.** Four times a week.
53. **Science Reading.** Twice a week.
55. **German Literature.** Lectures upon outline of German Literature. Reading of Selections. Four times a week.
57. **The German Drama.** Lectures and reading of Selections. Three times a week.
59. **Faust I.** Twice a week. (Can be taken only by those who propose to take 60)
61. **Middle High German.** Mediaeval Lyrics. Twice a week.
63. **Deutsche Culturgeschichte.** Lectures in German. Once a week.
65. **Colloquial Exercises.** For advanced students. Twice a week.
67. **Gothic.** Wright's Primer. The relation between Gothic and allied languages will be considered. Twice a week.
69. **Old Norse.** Lectures on Grammar and Reading of Sagas. The last two courses will alternate.
71. **Sanskrit.** Perry's *Primer*. Lectures introductory to the study of Indo-Germanic philology.

SECOND SEMESTER

52. Continuation of Course 51. Four times a week.
54. Continuation of Course 53. Twice a week. 53 and 54 must have been preceded by 51 and 52.
56. **German Lyrics.** Lectures and Reading of Selections. Four times a week. 55 and 56 must have been preceded by 51 and 52.
58. **The German Prose.** Lectures and Reading of Selections. Three times a week. 57 and 58 must have been preceded by 51, 52, 55 and 56.
60. **Faust II.** Twice a week.
62. **Mediaeval Epics.** Twice a week.
64. **Deutscher Aufsatz.** Once a week.
Courses 59, 60, 61, 62, 63 and 64, can be taken only with the approval of Professor Eggers; and must have been preceded by Courses 51, 52, 55 and 56, or their equivalents.
66. **Colloquial Exercises.** For advanced students. Twice a week.
68. **Old High German.** Lectures on Grammar and Literature. Reading of Selections. Twice a week.
70. **Comparative Grammar.** Lectures. Twice a week.
The last two courses will alternate.
72. Continuation of Course 71.

COLLEGE OF AGRICULTURE, ENGINEERING AND PHARMACY

1. **Elementary.** Four times a week, through the year.
2. **Science Reading.** Twice a week, through the year.
4. **German Literature.** Four times a week, through the year.

GREEK LANGUAGE AND LITERATURE

Professor Smith, Assistant Professor Hodgman

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

Elementary Greek. White's *First Greek Book* and one or two books of Xenophon's *Anabasis*. This Course is designed to meet, partially, the wants of those who are deficient in the Greek required for admission. It cannot receive University credit. Five times a week, through the year.

FIRST SEMESTER

51. **Xenophon's *Hellenica*.** Greek Prose Composition. Four times a week.
53. **Lysias**—Select Orations (Morgan). Attic Antiquities. Four times a week.
57. **Homer**—*Iliad* I-VI. Lectures on Epic Poetry. Three times a week.
59. **Lectures on History of Ancient Art.** Twice a week.
61. **The Attic Drama.** Lectures, collateral readings, and quiz. Twice a week.

SECOND SEMESTER

52. **Herodotus**—Book VII. Myers' *History of Greece*. Four times a week.
54. **Homer**—*Iliad*. Four times a week.
58. **Sophocles' *Oedipus Rex*.** Lectures on Attic Drama. Three times a week.
60. Continuation of Course 59.
62. **The Attic Drama.** Rapid reading of two or three plays. Twice a week. Must be preceded by 61.

COLLEGE OF ENGINEERING

1. **Lectures on History of Ancient Art.** Twice a week, through the year. Not given in 1900-'01.

HISTORY

(See American History)

HORTICULTURE

Professor Lazenby, Mr. Cunningham

1. **Elements of Horticulture.** Lectures and practice in laboratory, greenhouse, gardens, orchard, ornamental grounds and forest. A study of special garden crops, preparation of soil, drainage and irrigation, fertilizers, tools and implements, buildings and weeds.
Propagation, multiplication, germination, transplanting, budding, grafting and pollinating.
Greenhouse construction and management; crops of the vegetable forcing-house.
5. **Pomology and Viticulture.** Four times a week. First term.
6. **Winter Gardening and the Nursery.** Four times a week. Second term.

7. **Small Fruit Culture.** Including the theory and practice of spraying plants. Four times a week. Third term.
8. **Elements of Floriculture.** History and description of flowering plants. Twice a week. First term.
9. **Commercial Floriculture.** Twice a week. Second term.
10. **Amateur or Home Flower Gardening.** Management of house plants, ferneries, warden cases, climbing vines and flowering bulbs. Twice a week. Third term.
11. **Arboriculture.** Lectures and field work. A study of native trees and shrubs; their uses for shelter, shade and ornament; method of propagation, culture. Twice a week. First term.
12. **Forestry.** Lectures and recitations. A study of the influence of forests upon soils, crops and climate; value of trees for timber; how to improve existing woodland; establishment and management of plantations of forest trees; forestry in Europe. Twice a week. Second term.
13. **Landscape Gardening.** Lectures and practice. The principles of æsthetics as applied to natural scenery; the adornment of home and public grounds, including landscape engineering, landscape architecture and landscape horticulture. Twice a week. Third term.

INDUSTRIAL ARTS AND SHOPWORK

INDUSTRIAL ARTS

Associate Professor Sanborn, Mr. Knight, Mr. Weick, Mr. Smyser, Mr. McIntire.

1. **Tools Machines.** Lectures and recitations on hand and machine tools and the principles of mechanism and mechanics underlying their design, construction and operation. Three times a week.
2. **Designing.** Problems in drawing and design to accompany Course 1. Three drawing periods a week.
3. **Shop Equipment, Appliances and Management.** A continuation of Course 1. Lectures and recitations on the strength and durability of the materials used in construction: shop and factory buildings and their construction: power, power transmission and prime movers: automatic machines and other special devices for turning out cheap and accurate work: methods of compensation and shop accounts and management. Three times a week.
4. **Advanced Designing.** Problems in the design of buildings and the arrangement of machinery, line-shafting, etc., for manufacturing plants; to accompany Course 3. Three drawing periods a week.
5. **Workshop and Appliances.** Lectures and problems on the construction of shop buildings and the arrangement of machinery; power required and the means of transmission: friction in line-shafting and the efficiency of machinery: automatic machines and special shop appliances. Three times a week.
6. **Machine Design.** Application of the principles of mechanics and strength of materials to the problems of machine designing. Five times (ten hour's practice) a week.

SHOPWORK

1. **Carpentry and Pattern Making.** Exercises and practice in carpentry, wood-turning and pattern making, including sawing, planing, mortising, splicing, framing and other work involving the use of the ordinary carpenter tools; center and chuck turning; the making of finished patterns and core boxes; and enough elementary moulding to illustrate draft, parting, cores, etc. (Required in all Engineering Courses, except Civil Engineering. For time requirements see Courses.)
2. **Forging.** Exercises and practice in iron and steel forging, including such operations as drawing, bending, forming, upsetting, welding and the making and tempering of punches, drills, chisels, lathe tools and springs. (Required in all Engineering Courses, except Civil Engineering, and Chemistry. For time requirements see Courses.)
3. **Foundry Work.** Exercises and practice in tempering sand and preparing moulds of machine parts in the sand, core-making, melting iron and brass, and the pouring of castings. (First term of second year of Course in Mechanical Engineering, and third term of second year of Course in Industrial Arts.)
4. **Chipping and Filing.** Exercises and practice in vise work, including chipping in cast and wrought iron; surface filing, squaring, fitting, finishing, and the scraping of surface plates. (Required in all Engineering Courses, except Civil, and Chemistry and Short Mining. For time requirements see Courses.)
5. **Machine Work.** Exercises and practice in hand-turning in iron and brass on speed lathes; and straight and taper turning, boring, fitting, chucking, thread-cutting, etc., on engine lathes. (Third term of second year of Course in Mechanical Engineering, and second and third terms of third year of Course in Industrial Arts, and second term of second year of Short Course in Industrial Arts.)
6. **Advanced Machine Work.** Exercises and practice on planer, shaper, drill, milling and grinding machines; the construction of the working parts of actual machines; and the making, tempering and grinding of standard plugs, counter bores, milling cutters, drills, taps, reamers, etc. Three hours a week. (First and second term of third year of Mechanical Engineering Course, and first, second and third terms of fourth year of Course in Industrial Arts, and third term of second year of Short Course in Industrial Arts.)

LATIN

Professor Derby, Assistant Professor Hodgman

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

Courses 51, 52, 53 and 54, in the order named, must precede the Elective Courses 55, 56, 57, 58, 61, 62, 63, 64, 65 and 66.

FIRST SEMESTER

51. **Livy**—Books I and II: **Cicero**—*Cato Major*, or *Laelius*. Four times a week.
53. **Horace**—*Odes*, *Satires* and *Epistles*; **Pliny**—*Letters*. Four times a week.
55. **Roman Historians**. Three times a week. [Not offered in 1898-'99.]
57. **Roman Philosophy**. Three times a week.
59. **Pharmaceutical Latin**. Five times a week.
61. **Linguistics, and Inscriptions**. Twice a week.
63. **Teachers' Course**. Twice a week.
65. **Roman Rhetoric and Oratory**. Three times a week. [Not offered in 1898-'99.]

SECOND SEMESTER

52. **Early Latin Comedy**—Plautus and Terence. Four times a week.
 54. **Tacitus—*Histories*; Juvenal—*Satires*.** Four times a week.
 56. **Elegiac Poets**—Catullus, Tibullus, Propertius. Three times a week. [Not offered in 1898-'99.]
 58. **Ovid, Lucan, Martial**—Selections. Three times a week.
 60. **Pharmaceutical Latin**—Continuation of Course 59. Five times a week.
 62. Continuation of Course 61. Twice a week.
 64. Continuation of Course 63. Twice a week.
 66. **Later Latin Writers.** Three times a week. [Not offered 1898-'99.]

COLLEGE OF PHARMACY

1. **Pharmaceutical.** Five times a week. First, second and third terms.

LAW

FIRST YEAR

FIRST SEMESTER

Elementary Law (Robinson, Walker and Blackstone).

SECOND SEMESTER

Agency (Mechem); Contracts (Bishop); Criminal Law (Hawley); Sales (Tiedeman); Torts (Cooley).

SECOND YEAR

FIRST SEMESTER

Bailments (Hale); Commercial Law (Tiedeman); Evidence (Underhill or Greenleaf); Pleading (Phillips).

SECOND SEMESTER

Construction of Contracts (Jones); Partnership (Parsons); Real Property (Tiedeman); Wills (Schouler).

THIRD YEAR

FIRST SEMESTER

Constitutional Law (Black); Private Corporations (Taylor); Municipal Corporations (Tiedeman); Equity Jurisprudence (Fetter).

SECOND SEMESTER

Ethics (Sharswood); Insurance (Richards); Negligence of Municipal Corporations (Jones); Suretyship (Baylies).

MATHEMATICS

Professor Bohannon, Assistant Professor McCoard, Mr. Arnold, Mr. Swartzel, Mr. Rasor, Miss Ball

A. TERM COURSES

1. **Elementary Algebra.** *Venable.* Five times a week. First term. (Short Course in Agriculture).
 3. **Plane Geometry.** *Venable.* Five times a week. First or second terms.
 3a. **Plane Geometry.** *Venable.* Five times a week. Second term. (Short Courses in Agriculture and Clay-working and Ceramics).

13. **Solid Geometry.** *Venable.* Five times a week. Second term.
14. **Plane Trigonometry.** *Loney.* Five times a week. First or third terms.
15. **Analytical and Spherical Trigonometry.** *Loney,* with notes on Spherical Trigonometry. Twice a week. Second term.
16. **College Algebra.** *Taylor.* Three times a week. Second term.
17. **Plane Analytics.** *Loney.* Five times a week. Third term.
18. **Analytics and Differential Calculus.** *Loney. Venable. Edwards.* Five times a week. First term.
19. **Differential Calculus.** *Edwards.* Five times a week. Second term.
20. **Integral Calculus.** *Edwards.* Five times a week. Third term.
11. **Differential Equations.** *Edwards.* Once a week. First term.
8. **Least Squares.** *Merriman.* Twice a week. First term.

B. SEMESTER COURSES

FIRST SEMESTER

55. **Plane Trigonometry** (*Loney*) and 57, **Algebra** (*Taylor*). Five times a week.
59. **Analytics** (*Loney, Venable*) and 61, **Differential Calculus** (*Edwards*). Five times a week.
63. **Advanced Mathematics.** Topics will be changed from year to year to meet the wishes of the students. Selections may be made from the following courses: (a) Advanced Calculus (*Picard, Houel*); (b) Differential Equations (*Johnson Murray, Forsythe, Craig*); (c) Higher Plane Curves (*Salmon*); (d) Advanced Analytical Geometry (*Casey, Salmon*); (e) Analytical Geometry of Three Dimensions (*Chas. Smith, Frost, Salmon*); (f) Theory of Equations (*Burnside and Panton*); (g) Modern Higher Algebra (*Chrystal, Salmon, Serret, Cole's Netto*); (h) Modern Geometry (*Cremona, Reye, Steiner, Von Staudt, Chasles*); (i) Determinants (*Muir*); (j) Elliptic Functions (*Weber, Halphen, Durege, Hermite, Greenhill, Briot and Bouquet*); (k) General Theory of Functions (*Forsythe, Harkness and Morley, Tannery, Weierstrass, Durege, Thoame, Biermann*); (l) Potential Function (*Clausius, Riemann, Dirichlet, Peirce*); (m) Mathematical Theory of Electricity (*Mascart and Foubert*); (n) Higher Geodesy (*Clarke, Helmert, Jordan*); (o) Spherical Harmonics (*Byerly, Ferrers, Heine*); (p) Mathematical Optics; (q) History of Mathematics. Five times a week.
65. **Problems on all past work.** Once a week.
67. **Algebra, Analytics, Calculus.** Three times a week.

SECOND SEMESTER

56. **Algebra** (*Taylor*), and 58, **Plane Analytics** (*Loney*). Five times a week.
60. **Calculus** and 62, **Differential Equations.** (*Edwards*). Five times a week.
64. Continuation of Course 63. Five times a week.
66. Continuation of Course 65. Once a week.
68. **Trigonometry, Analytics, Calculus.** Three times a week.

MECHANICAL ENGINEERING

Professor Magruder, Associate Professor Hitchcock, Mr. Judd, Mr. Hale

3. **Mechanism.** Lectures and recitations on the principles of mechanism and mechanical movements. Five times a week. Second term.
The accurate laying out of movements, embodying the principles of mechanism. Twice a week. Third term.
6. **Analytical Mechanics.** Five times a week. First and second terms.
7. **Strength of Materials.** Recitations and lectures on the elastic and ultimate resistance of the materials of engineering to stress and their use in structures and machines. Lectures on elementary hydraulics and the flow of water through orifices and pipes over weirs, and in streams, and on measuring the same. Five times a week. Third term.
8. **Thermodynamics.** Lectures and recitations on the transformation of heat and mechanical energies. Ideal indicator diagrams of steam, air and gas engines; the flow of gases through pipes and orifices. Five times a week. Third term.
9. **Prime Movers.** Lectures and recitations on steam and gas engines, turbine water wheels, valve movements and governors; their construction, operation, efficiency and economy. Five times a week. First term.
10. **Steam Boilers.** Lectures and recitations on steam boilers, furnaces, automatic stokers, gas producers and boiler appliances; their construction, operation, efficiency and economy. Five times a week. Second term.
12. **Experimental Engineering Laboratory.** Twice a week. First term. Third year.
13. The same. Four times a week. First term. Fourth year.
14. The same. Four times a week. Second term. Fourth year.
15. The same. Three times a week. Third term. Fourth year.
16. The same. Four times a week. Third term. Third year, Electrical Engineering.
17. The same. Three times a week. Second term. Fourth year, Civil Engineering.

Courses 12, 13, 14, 15, 16, 17, 24 and 25, in the Experimental Engineering Laboratory are arranged to meet the needs of the different students in obtaining experimental practice in the use and calibration of accurate measuring instruments; in testing illuminating and lubricating oils for friction, endurance, and the like; in the calibration and adjustment of gauges and springs; in testing the strength and elasticity of the materials of construction in tension, compression, torsion, flexure, shear, and impact; in the flow of liquids and gases; in the use of the steam engine indicator and transmission and absorption dynamometers; in testing of steam separators, injectors, steam pipe coverings; belt, rope and chain gearing; in setting valves and eccentrics; in making efficiency tests of simple and compound, condensing and non-condensing steam engines; of steam boilers and complete power plants; of gas and hot air engines; of pulsometer steam and centrifugal pumps; of hydraulic rams and of impulse and turbine water wheels.

18. **Machine Design.** Recitations on Unwin's *Machine Design*, with lectures on American Practice. Five times a week. First and second terms.
20. **Hydraulic Machinery.** Recitations and lectures on pumping machinery. Twice a week. Third term.

21. **Thesis Work.** Five times a week. Third term.
22. **Timber and Masonry.** Lectures on the construction of foundations and structures in timber and masonry. Five times a week, the last three-fifths of second term.
23. **Materials of Construction.** Lectures on the materials used in architecture and building construction, and laboratory exercises on their properties. Five times a week. First term.
24. **Experimental Engineering Laboratory.** Three times a week. First and second terms. Elective to third year and fourth year engineers.
25. **Experimental Engineering Laboratory.** Three times a week. Third term. Fourth year, Civil Engineering.

METALLURGY AND MINERALOGY

Professor N. W. Lord, Mr. Somermeir

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

52. **Mineralogy.** Lectures, with frequent quizzes on notes and with study of specimens in the collection of minerals. A short introductory course is given on crystallography, illustrated by wooden models. Text Book: Dana's *Manual Mineralogy and Lithology*. Last nine weeks of Second semester.

COLLEGE OF ENGINEERING

2. **Mineralogy.** Lectures. Similar to Course 52 in College of Arts, Philosophy and Science, but more practical, and arranged so as to be preparatory to Determinative Mineralogy (Course 3). Three times a week. Third term.
3. **Determinative Mineralogy,** laboratory course in practical determination of minerals by physical and chemical tests. Each student is furnished with a set of apparatus, and works under an instructor's inspection. Brush's *Determinative Mineralogy* is used as a manual. Five times a week. Third term.
4. **Metallurgy.** A course of lectures upon fuel and its uses, iron and steel, copper, lead, gold and silver, their properties, tests, ores and details of the modes of reduction. The lectures are supplemented by a careful study of references to standard works and journals. Five times a week. First and second terms.
5. **Metallurgical Laboratory.** Lectures and laboratory work. Laboratory practice in the analysis of iron and steel, fuels and slags, and the assay of lead, copper and zinc ores by wet methods, using approved methods as practiced in technical laboratories of metallurgical works. Course 5 must be preceded by Agricultural Chemistry, Courses 1, 8, 9; or by General Chemistry, Courses 7 and 12. Five laboratory periods a weeks. Three terms.
6. **Assaying.** Laboratory work. Practical work in the assaying of gold, silver and lead ores, by furnace methods. Oral instruction, with references to standard books on assaying. Five laboratory periods a week. Second term.
7. **Metallurgical Construction.** Practice in the designing of furnaces and other metallurgical machinery, including detail drawings and estimates. Three times a week. First term. (Professors Lord and Ray.)

8. **Ore Dressing and Coal Washing.** Lectures. Instruction in the methods of concentrating and enriching ores and fuels by mechanical means. Lectures with reference to Rittinger's *Aufbereitung*; Callon's *Course d'Exploration des Mines*; Kunhardt's *Ore Dressing*, and various papers in technical journals. Twice a week. First term.
9. **Mineral Chemistry.** Lectures and laboratory practice. Lectures upon fire damp, mine explosions, explosives, boiler, waters, poisonous gases, iron ores; iron and steel, their properties and modes of manufacture; coal and coke. Five hours a week. Third term.

MILITARY SCIENCE AND TACTICS

Lieutenant Martin

1. **Military Drill.** Three times a week through the year.
2. **Tactics.** Lectures and recitations. Twice a week. Second term.
3. **Art of War.** Lectures and recitations. Twice a week. Second term.

MINE ENGINEERING

Associate Professor Ray

Elementary Algebra. (Mathematics 2). Wentworth. Five times a week. Three terms.

1. **Mine Surveying.** Lectures and field practice. This is similar to Course 4, but more elementary. The same text is used. The students have more practice in the drawing-room. Five times a week. First term.
2. **Ventilation and Haulage.** Lectures illustrated by experiments and maps of mines and models when possible, tests by safety lamps and anemometers, and solution of air distribution in coal mines. Five times a week. Second term.
3. **Mine Operating.** A course of lectures and practical instruction in mine book-keeping and accounts, cost of working, etc., particularly adapted to Ohio coal mining. Five times a week. Third Term.
4. **Mine Surveying.** Field practice in the use of instruments for surface and underground surveys. Full notes are taken, and maps and plans made in the drawing room. Davie's *Surveying*, by Van Amringe, is used as a text-book. Five times a week. First term.
5. **Mine Engineering.** Lectures. Mine operating, mining machinery, ventilation, shaft-sinking, working out deposits, etc. Constant reference is required to the standard works and to the leading technical journals, with practice in designing mine plants, draughting and estimates. Five times a week. Through the year.
6. **Plans and Specifications.** Five times a week. Third term. [Profesors Lord and Ray.]

PHARMACY

Professor Kauffman, Assistant Professor Dye

6. **Pharmacy.** General pharmaceutical processes. Lectures three times a week First term.
7. **Pharmacy.** United States Pharmacopeia official preparations. Lectures twice a week. Laboratory practice daily. Second term.

8. **Dispensatories.** Official preparations. Lectures twice a week. Laboratory practice daily. Third term.
9. **Pharmaceutical Chemistry.** Unofficial preparations. The National Formulary. Lectures twice a week. Laboratory practice daily. First term.
10. **Extemporaneous Pharmacy.** Prescription practice. Lectures once a week. Laboratory practice three times a week. Second term.
11. **General Practice.** Lectures twice a week. Dispensing practice daily. Prescription practice daily. Third term.
12. **Materia Medica.** Official drugs and classification. Three times a week. First term.
13. **Materia Medica.** Official and unofficial drugs. Three times a week. Second term.
14. **Materia Medica and Therapeutics.** Synthetic Products. Poisons and Antidotes. Three times a week. Third term.
15. **Pharmaceutical Assaying.** Three times a week. First term.
16. **Methods of Manufacture.** Three times a week. Second and Third terms.
17. **General Pharmacy.** Two lectures, three laboratory periods a week. Through the year.
18. **Laboratory.** Special work for Veterinary students. Five times a week. Third term.

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

(Course Preparatory to Medicine)

FIRST SEMESTER

51. **Pharmacy.** General pharmaceutical processes. Lectures three times a week.

SECOND SEMESTER

52. Continuation of Course 51, with Laboratory practice.

PHILOSOPHY

Professor Scott, Mr. Wissler

FIRST SEMESTER

51. **Psychology. Logic begun.** Four times a week. Required in the Courses for B. A., B. Ph. (L.), and B. Ph. (M. L.)
53. **Psychology.** Three times a week. Required in the Courses for B. Ph. (E.), B. Sc., for Law and Journalism, and for Medicine.
55. **Ethics.** Three times a week. Required in Course for B. Ph. (E.)
57. **History of Ancient and Mediaeval Philosophy.** Three times a week. Elective after Courses 51 and 52.
59. **Introduction to Philosophy.** Twice a week. Elective after Courses 51, 52, 56 and 57 or after Courses 53, 54, 55, and 56.
61. **Physiological and Experimental Psychology.** Twice a week. Elective.
63. **Leading Works in Philosophy.** Twice a week. Elective on the same conditions as Course 59.

SECOND SEMESTER

52. **Logic completed and Ethics.** Four times a week. Follows Course 51.
54. **Logic.** Three times a week. Follows Course 53.
56. **History of Modern Philosophy.** Three times a week. Required after Course 55. Also elective after Courses 51 and 52.
60. **Metaphysics.** Twice a week. Elective after Courses 51, 52, 57 and 56 or after Courses 53, 54, 55 and 56.
62. **Physiological and Experimental Psychology.** Twice a week. Elective.
64. **Leading Works in Philosophy.** Twice a week. Elective on the same conditions as Course 60.

PHYSICS

Professor Thomas, Assistant Professor Boyd, Mr. Brown

COLLEGES OF AGRICULTURE, ENGINEERING AND PHARMACY.

1. **Elementary Physics.** Recitations and experimental lectures. Five times a week. First and Second Terms. Text: Carhart & Chutes' "Elements of Physics." (Required in all Short Courses.)
2. **Mechanics and Heat.** Electricity and Magnetism, Sound and Light. Lectures and recitations. Three times a week. Through the year.
3. **Physics.** Extension of Course 2, with practice in solution of problems. Twice a week. Through the year.
4. **Electricity and Magnetism.** Lectures and recitations. Three times a week.
• First term. (Third year, Electrical Engineering.)
5. **Physical Laboratory.** Elementary manipulation. Length, mass and time measurements. Work in density, elasticity and heat. Three times a week. Second and third terms.
6. **Physical Laboratory.** Theory and practice of magnetic and electrical measurement, including the testing and standardizing of instruments; conductivity of conductors; insulation, capacity and resistance of insulated conductors and cables; temperature co-efficients; commercial measuring and testing instruments; strength and distribution of magnetic fields, magnetic moments, permeability; work in light including optical constants spectroscopy; photometry of gas, electric and other lights. Five times a week, First, second and third terms. (Third year, Electrical Engineering.)
7. **Physical Laboratory.** Two to three times a week. Through the year. Course 7 must be preceded by Course 2.
9. **Physical Laboratory.** A second year's work in the Physical Laboratory. Three times a week, with five hours' credit. Course 9 must be preceded by Course 7.

The work in the Physical Laboratory begins with exercises in length, mass and time measurement, making use of scales, tapes and bars, micrometer screws, micrometer microscopes, the dividing engine, the cathetometer, the balance, chronometers, chronoscopes, etc. This course is intended to give the student facility in the use of instruments and knowledge of the theory of their construction and adjustment.

The determination of various physical constants follows, with elementary exercises in heat, light, electricity and magnetism; after which the student takes up such advanced work as his taste and skill permit. The experimental work is accompanied by instruction in methods and in the discussion of results.

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

FIRST SEMESTER

51. **Mechanics, Heat, etc.** Three times a week. Second year, Science Course. Elective in the First year of the Courses of Arts and Philosophy.
53. **Mechanics Sound and Heat.** One lecture, two laboratory periods a week. Elective in the First year of the Courses of Arts and Philosophy. Required in the First year of the Course Preparatory to the Study of Medicine.
55. **Laboratory.** Three to five times a week.
57. **Laboratory.** Three to five times a week. Course 57 must be preceded by Course 55.

SECOND SEMESTER

52. **Electricity, Magnetism, etc.** Three times a week. Follows Course 51.
54. **Electricity, Magnetism, etc.** One lecture, two laboratory periods a week. Follows Course 53.
56. **Laboratory.** Continuation of Course 55.
58. **Laboratory.** Continuation of Course 57.
60. **Laboratory.** Two hours a week. First year of Course Preparatory to the Study of Medicine.

PHYSIOLOGY

(See Anatomy and Physiology)

POLITICAL ECONOMY

(See Economics)

POLITICAL SCIENCE

(See American History and Political Science.)

RHETORIC AND ENGLISH LANGUAGE

RHETORIC

Professor Denney, Assistant Professor Taylor, Assistant Professor Graves, Mr. Parker

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

FIRST SEMESTER

51. **Paragraph Writing.** Themes. Twice a week.
53. **Analysis of Prose.** Themes. Four times a week.
55. **Rapid Writing.** Preparation of articles for the Press. Once a week.
57. **Brief-Making and Argument.** Three times a week.
59. **Poetics.** Twice a week. Special permission necessary.

- 61. **Rhetorical Theory.** Special investigations, reports and discussions. Two hours a week. Students must have special permission to carry this work.
- 63. **Advanced Rhetoric.** Twice a week.

SECOND SEMESTER

- 52. **Practical Rhetoric.** Themes. Twice a week.
- 54. **Analysis of Prose.** Repetition of Course 53. Four times a week.
- 56. **Rapid Writing.** Continuation of Course 55. Once a week.
- 58. **Studies in Exposition.** Types of the English Essay; book reviews. Three times a week.
- 60. **Short Stories.** Lectures and Practice. Twice a week.
- 62. **Problems in Criticism.** Special investigations, reports, and a thesis. Two hours a week. Must be preceded by Course 61.
- 64. **Advanced Rhetoric.** Twice a week.

COLLEGES OF AGRICULTURE, ENGINEERING AND PHARMACY

- 1. **Paragraph Writing and Practical Rhetoric.** Themes and Exercises. Twice a week, three terms.
- 3. **Advanced Rhetoric.** Twice a week, three terms.
- 4. **Advanced Composition.** Twice a week, three terms.

ENGLISH LANGUAGE

Professor Denney

FIRST SEMESTER

- 51. **Old English (Anglo Saxon).** Prose. Twice a week.
- 53. **Middle English and Historical English Grammar.** Twice a week.

SECOND SEMESTER

- 52. **Old English (Anglo Saxon).** Poetry. History of the Language. Must be preceded by Course 51. Twice a week.
- 54. **Middle English and Historical English Grammar.** Twice a week.

ROMANCE LANGUAGES

I. FRENCH

Professor Bowen, Dr. Brush

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

FIRST SEMESTER

- 51. **Elementary French.** Four times a week. Grammar: Edgren's (Part I) or Joynes' Minimum, with written exercises. Reader: Super's (from Part II) or Whitney's (Parts I and II). In this course the study of the language is taken up from the beginning. Stress is laid at first upon the acquisition of a correct pronunciation, after which the entire energy of the student is directed toward the attainment of a full and accurate reading knowledge of the language. Grammar and composition are made to contribute to this end.

53. **Science Reading.** Two times a week. A course introductory to the vocabulary of scientific literature, designed to familiarize the student with technical terms and style. Open to those who have completed Courses 51 and 52, or who have received credit for French as an entrance subject.
55. **Modern French Literature.** Four times a week. Contes and Novels: Bercy's *Contes et nouvelles modernes*: Balzac, Eugénie Grandet. Prose composition: Edgren's French Grammar [Syntax]. Lectures supplement the work; private reading required; systematic attention given to syntax and idiom. Open to those who have completed Courses 51 and 52, or who have received credit for French as an entrance subject.
57. **French Comedy.** Three times a week. Study of the growth of French Comedy, with work centering upon Molière [four plays], Regnard [Le Joueur] and Beaumarchais [Le Barbier de Séville]. Lectures and collateral reading. Open to those who have completed Courses 55 and 56.
59. **Advanced Prose Composition.** Once a week. Practice in speaking and writing French. Intended for advanced students who desire special training on the practical side of the language. Open to those who have completed Courses 55 and 56.
61. **French Tragedy.** Three times a week. Racine and Voltaire. Lectures and readings, with assigned topics, reports and discussions. Must be preceded or accompanied by Course 57. [Not offered in 1899-1900.]
63. **French Literature Before the Seventeenth Century.** Three times a week. Advanced work as in Course 61. Special study of *la Chanson de Roland*. Must be preceded or accompanied by Course 57.

SECOND SEMESTER

52. **Modern Prose and Plays.** Continuation of Course 51. Four times a week. Historical and narrative prose; one or more prose comedies. Sight reading is emphasized.
54. **Science Reading.** Continuation of Course 53. Twice a week.
56. **Modern French Literature.** Continuation of Course 55. Four times a week. Lyric Poetry: Bowen's *Modern French Lyrics*. Drama: Comparative study of the classical and the romantic drama: Corneille, Horace; Hugo, Hernani.
58. **Recent French Prose Writers.** Three times a week. Bourget, Daudet, Zola, and others. Open to those who have completed Courses 55 and 56.
60. **Advanced Prose Composition.** Continuation of Course 59. Once a week.
62. **Chateaubriand and the Precursors of the Romantic Movement.** Three times a week. Lectures and readings, with assigned topics, reports and discussions. Must be preceded by course 57. [Not offered in 1899-1900.] Toward the close of the year lectures will be given on: Methods of teaching French and the teacher's equipment.
64. **The Development of the French Novel.** Three times a week. Advanced work, as in Course 62. Must be preceded by Course 57.

COLLEGES OF AGRICULTURE AND ENGINEERING

1. **Elementary French.** Four times a week throughout the year. Grammar and reader, modern prose and plays, as in Courses 51 and 52.

2. **Modern French Literature.** Four times a week throughout the year. The work is the same as in Courses 55 and 56. Open to those who have completed Course 1.
3. **Science Reading.** Twice a week throughout the year. The work is the same as in Courses 53 and 54. Open to those who have completed Course 1 (or an equivalent).

II. ITALIAN

Dr. Brush

51. **Grammar and Readings.** Two hours a week. First Semester. Grandgent's Italian Grammar and Bowen's First Italian Readings. Open to those who have completed Courses 51 and 52 (or an equivalent) in French. (Given in alternate years; will not be offered in 1899-1900.)
52. **Goldoni and Dante.** Continuation of Course 51. Two hours a week. Second Semester.

III. SPANISH

Professor Bowen

51. **Grammar and Readings.** Twice a week. First Semester. Manning's Spanish Grammar and Matzke's First Spanish Readings. Open to those who have completed Courses 51 and 52 (or an equivalent) in French.
52. **Calderon and Cervantes.*** Continuation of Course 51. Twice a week. Second Semester.

SANSKRIT

(See Germanic Languages)

SHOPWORK

(See Industrial Arts)

SOCIOLOGY

(See Economics and Sociology)

VETERINARY MEDICINE

Dr. White, Dr. Lavery, Dr. Fredericks, Mr. Brumley

COLLEGES OF AGRICULTURE AND VETERINARY MEDICINE

11. **Osteology.** Lectures illustrated with skeletons and anatomical preparations. Dissections. Five times a week. First term.
12. **Myology.** Splanchnology and Angiology. Practical dissections and demonstrations on cadavers. Five times a week. Second term.
13. **Lectures, Illustrated in the Dissecting Room and on Anatomical Models.** Five times a week. Third term. Books of reference and recommended for study: Chauvau's *Comparative Anatomy* (Fleming's translation); Strangeways; McFadyean; Mueller and Leisering.
14. **Lectures and General Pathology.** Five times a week. First term.
15. **Special Pathology and Therapeutics of Sporadic Diseases.** Non-infectious Internal Diseases. Five times a week. Second term.
16. **Special Pathology and Therapeutics of Non-Infectious Diseases of the Horse, Ox, and Dog.** Five times a week. Third term.
17. **Diseases of the Cow.** Three hours a week. Second term.

18. **Surgical Diseases and Operations.** Lectures: illustrated by practical demonstrations by drawings, on living animals in the clinic, and on cadavers in the dissecting room. Five times a week. First, second and third terms. Books recommended: As text-book, Mueller's *Operative Veterinary-Surgery* (Dollar's translation). Liantard's *Manual of Operative Veterinary Surgery*, Beyer.
19. **Horse, Cattle, and Dog Clinic in the Veterinary Hospital.** Stationary and Ambulatory. The clinics are held at 10-11 A. M. (standard) and are free. Animals left in the Hospital are treated by the students of the junior and senior years, under the superintendence of the clinical professor.
20. **Special Pathology and Therapeutics of Infectious and Contagious Diseases.** Five times a week. First term.
21. **Special Pathology and Therapeutics of Infectious and Contagious Diseases.** Three times a week. Second term. Texts: Froehner-Freidberger, Williams, Robertson.
22. **General Therapeutics.** Lectures. Texts: Ellenberger and Hoffmeister. Five times a week. Third term.
23. **Obstetrics.** Lectures and demonstrations. Anatomy and pelvic organs. Diseases before and after parturition. Obstetrical operations and manipulations. Books: Fleming's Franck's *Obstetrics*. Three times a week. First, second and third terms.
24. **General Surgery.** Practical work, such as the more common operations which a regular practitioner would be called upon to perform. All this work is done by the student upon chloroformed live animals purchased for the purpose. Five times a week. First term.
25. **Anatomical Laboratory.** Practical work in Topographical Anatomy, as a review of Anatomy for senior students. Books: McFadyean, Schmaltz's Plates.
26. **Principles of Horse-shoeing.** Lectures and demonstrations. Includes all the diseases of the foot due to bad paring, shoeing, etc. Books: Leisering, Fleming.
27. **Meat Inspection.** Lectures on Inspection of Meat and Milk. Five times a week. Books: Walley, Ostertag.
28. **Anatomy.** Five times a week. First term.
29. **General Pathology.** Five times a week. Second term.
30. **Special Pathology and Therapeutics of Infectious and Contagious Diseases.** Five times a week. Third term.

ZOOLOGY AND ENTOMOLOGY

Professor Osborn, Assistant Professor Hine, Mr. Landacre

COLLEGE OF AGRICULTURE

1. **Invertebrate and Vertebrate.** Three times a week. Invertebrate, First and second terms; Vertebrate, Third term.
3. **Economic Entomology.** Insects of Forests, Orchard and Garden. Five times a week. Third term.
4. **Economic Entomology.** Twice a week, through the year. This course must be preceded by Course I.
7. **Systematic and Practical Entomology.** Two lectures and one laboratory period a week. Third term.

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

FIRST SEMESTER

51. **Comparative Zoology.** Two lectures and one laboratory period a week.
53. **Comparative Anatomy of Vertebrates.** A laboratory course. Three laboratory periods a week.
55. **Comparative Anatomy of Vertebrates.** A laboratory course. Five laboratory periods a week.
57. **Zoology and Anatomy.** Advanced laboratory. Three laboratory periods a week.
59. **Zoology and Anatomy.** Advanced laboratory. Five times a week.
61. **Entomology.** An advanced Practical Course. Five laboratory periods a week. This Course must be preceded by Courses 51 and 52, or 1, or 4, or 7 in the College of Agriculture.
65. **Ornithology.** Two laboratory periods a week. Open to those who have had Zoology 51, or its equivalent.

SECOND SEMESTER

52. Continuation of Course 51. Lectures twice a week. One laboratory period.
 54. Continuation of Course 53. Three laboratory periods a week.
 56. Continuation of Course 55. Five laboratory periods a week.
 58. Continuation of Course 57. Three laboratory periods a week.
 60. Continuation of Course 59. Five laboratory periods a week.
 62. Continuation of Course 61. Five laboratory periods a week.
 64. **Comparative Zoology.** Three lectures and one laboratory period a week.
 66. Continuation of Course 65.
- Courses 57, 58, 59, 60, 61, 62, must be preceded by Course 1 in the College of Agriculture, or Courses 51, 52, or 53, 54, or 64; or an equivalent taken elsewhere.
- The student may choose his work from any of the following:
- (a) The Exhaustive Anatomy and Histology of the Frog.
 - (b) Comparative Anatomy of Invertebrates.
 - (c) Invertebrate Embryology.
 - (d) Vertebrate Embryology.
 - (e) Comparative Neurology.
 - (f) Cellular Biology.

A student whose major lies in Zoology may take two full years work, selected from subjects named in the foregoing list.

ENROLLMENT

1897-1898

COLLEGE OF AGRICULTURE AND DOMESTIC SCIENCE

GRADUATE STUDENTS—3

Baker, William Hollister, B. Agr., 1892.....	Farmersville, Mo.
Cunningham, John Ferguson, B. Sc. (H. & F.), 1897.....	Columbus
Fox, Charles Pinckney, B. Agr., 1890; M. Agr., 1895.....	Columbus

FOUR-YEAR COURSES—68

	Course	Course Hours	Credit Hours	
Abbott, Arthur Grant.....	Agr.	202	148	Medina
Ackland, Richard Edward.....	†	.....	12	Columbus
Armstrong, Clara.....	Dom. Sci.	203	40	Columbus
*Aten, Franklin Stewart.....	Agr.	204	110	Nevada
Ayers, Samuel Dana.....	Agr.	204	104	Hartsgrove
Beattie, Lena Leota.....	†	.....	90	Zanesville
Belden, Herbert Lucius.....	Agr.	206	53	Middlefield
Britton, William Miller.....	Agr.	206	15	Columbus
Britton, John C., B. Sc. (Agr.).....	.....	.....	.....	Mt. Gilead
Bryson, Julia Leona.....	†	.....	8	Columbus
*Clawson, Clarence.....	Agr.	202	166+21	O'Kena
Conradi, Albert Frederick.....	Agr.	206	48	New Bremen
*Davis, Vernon Hayes.....	Agr.	204	123	Byesville
*Dixon, Eva Nicholson.....	Dom. Sci.	203	26	Columbus
*Dresbach, Mary.....	Dom. Sci.	203	45	Columbus
*Duncan, Donnelly Hyre.....	Agr.	206	36	Ludlow
*Erf, Oscar.....	Agr.	202	171	Monroeville
Fearn, Nellie.....	Dom. Sci.	203	8	Columbus
*Fippin, Elmer Otterbein.....	Agr.	204	133	Galloway
*Fitts, Rollin.....	Agr.	204	135	Elyria
Flickinger, George A., B. Sc. (Agr.).....	.....	.....	.....	York
*Galehouse, David William.....	Agr.	206	83	Doylestown
Gibbs, Ola W.....	†	.....	8	Columbus
*Gibson, Herbert R.....	Agr.	206	54	Camp Chase
Gilmore, William Henry.....	Agr.	202	184	Millersport
*Givens, David Albert.....	Agr.	206	96	McGaw
Hains, Edna Esther.....	Dom. Sci.	203	.....	Bloomingsburg
*Harper, Merritt.....	Agr.	206	45	Grove City
*Hayden, Cassius Clay.....	Agr.	204	100	Oakdale
*Henderson, Frank A.....	Agr.	204	122	McConnellsville
*Huff, Haines.....	Agr.	204	93	Leesburgh

*Preparatory work incomplete.

†Irregular—not candidates for degree.

	Course	Course Hours	Credit Hours	
Hunt, Mary.....	Dom. Sci.	203	46	Legal, Ill.
*Imes, Marion.....	Agr.	202	154+21	Bashan
Johnston, Fred S.....	Agr.	204	182	Pierpont
Joyce, Mary Gertrude.....	Dom. Sci.	203	45	Columbus
*Kolbe, Lawrence Albert.....	Agr.	206	26	North Amherst
*Liles, Frederick William.....	Agr.	206	12	Collins
Long, Frederick Pontius.....	Agr.	206	15	Kingston
Loomis, Humbert H.....	Agr.	202	171	Deerfield
Mason, Arthur Devillo.....	Agr.	206	45	Wellington
Miller, Carl James, B. Sc. (Agr.).....				Franklin
Miller, Merritt Finley.....	Agr.	204	115	Ridpath
Mills, William C., B. Sc. (H. & F.).....				Mt. Vernon
*Mooney, Charles Napoleon.....	Agr.	202	119	Milan
McCall, Arthur Gillet.....	Agr.	202	104	McGaw
McClelland, Chalmer Kirk, B. Sc. (Agr.)..				Andover
*McOwen, James, Jr.....	Agr.	204	81	Ovid
*Neill, Nelson Prentice.....	Agr.	206	40	Venice
Nettleton, Albert Warren, B. Sc. (Agr.) ..				Medina
Palmer, Mary Ella.....	†		8	Columbus
Perry, Elma Brooks.....	Dom. Sci.	203	61	Troy
*Perry, John Cole.....	Agr.	206	46	Columbia Sta.
*Pierce, Benjamin Manly.....	Agr.	206	45	Ringgold
*Postle, Stuart A.....	Agr.	206	58	Camp Chase
Roberts, John Livingston.....	Agr.	204	99	Vaughsville
*Schaeffer, Freelan Wilbert.....	Agr.	204	73	Spanker
*Sigrist, John Larkum.....	Agr.	206	28	Congress
*Snyder, Addison Hogan.....	Agr.	206	49	Tacoma
Steward, Charles Benjamin.....	Agr.	204	117	Marcy
*Taylor, Everett Buren.....	Agr.	206	26	New Albany
*Taylor, Frederick Wellington.....	Agr.	206	81	Wooster
*Thompson, Frank McColgan.....	Agr.	206	8	Georgetown
Twitchell, Lee Downs.....	H. & F.	206	30	Mansfield
*Tyler, Fred J.....	H. & F.	204	104	Perry
Waid, Clarence William, B. Sc. (H. & F.)..				Emery
Warden, Leonard C.....	H. & F.	204	141	Avon
*Weisman, Laura Anna.....	Dom. Sci.	197	107	Columbus
*Whiting, Roy Eugene.....	Agr.	206	26	Austinburg

*Preparatory work incomplete.

†Irregular—not candidates for degree.

SHORT COURSES

AGRICULTURE—41

	Course Hrs.	Credit Hrs.	
Adams, Walter Lewis.....	98	.....	Columbus
Anderson, Joseph Buchanan.....	98	49+2	Jewitt
Baldwin, Linus R.....	98	40+5	Tigar
Breeze, Clarence Nye.....	98	44+4	Lima
Brinker, Thomas William.....	98	51	Chatham
Clevenger, Charles Henry.....	98	53+15	Fletcher
Cotton, Edward Charles.....	98	53	Elyria
Demorest, Herbert Russell.....	98	56	Columbus
Ditto, Theodore Walter.....	98	98+23	Delphos
Dyer, Harry Spencer.....	98	59	Rainbow
Falknor, Earl Andrew.....	98	.....	Ludlow
Finlay, Thomas Kirkwood.....	98	53+4	Keene
Fisher, Elmer Ellsworth.....	98	48	Chili, Ind
Gearing, Benjamin Louis.....	98	.....	St. Mary's
Gilmore, Walter Hayes.....	98	68+2	Millersport
Gladding, Maynard Marcus.....	98	63	Windsor
Goodwin, Clare F.....	98	66	Columbus Station
Harris, Melvin Jay.....	98	.....	Garrettsville
Hershey, Benjamin Westhefer.....	98	13	Easton
Houston, Maurice Charles.....	98	20	London
Kelley, William Lester.....	98	50+2	Newark
Leedy, Herbert Emerson.....	98	37	Belleville
Mackey, James Earle.....	98	60+6	Richfield
Marion, Walter Jerid.....	98	40+3	Amanda
McClellan, John Arthur.....	98	51	Cable
McKay, Welden Nickerson.....	98	29+5	New Burlington
McOwen, Thomas.....	98	10+2	Ovid
Palmer, Roland Jay.....	98	48+1	Penfield
Parsons, John Strong.....	98	98+35	Rootstown
Partridge, Burt Mitchell.....	98	.....	Flint
Peters, Royal S.....	98	37	Zanesfield
Ream, Earl Sheldon.....	98	51	Hustonville, Ky
Ridinger, John Gilbert.....	98	53	Kalida
Rubens, Frank.....	98	93+10	Kenton
Sanders, Boston Corbett.....	98	38	Steubenville
Stimmel, John Russell, Jr.....	98	57	Ruse's
Thompson, Jay.....	98	36+17	Sandusky
Thornburg, Clarence Edward.....	98	15	Highland
Uncapher, Jesse Darius.....	98	37	Marion
Whipple, Charles Mantanion.....	98	73	Medina
Wilken, Walter William.....	98	15	Columbus

DOMESTIC SCIENCE—3

	Course Hrs.	Credit Hrs.	
Hill, Mamie Faye.....	90	27	Columbus
Postle, Florence.....	90	60	Camp Chase
Riley, Valeria.....	90	72	Washington C. H.

DAIRYING—29

Beard, Alexander Wilson.....	New Buffalo
Bragg, Putnam Benjamin.....	Marietta
Comstock, Allen L.....	West Richfield
Durbin, Theodore.....	Danville
Garner, Clarence Harris.....	New Concord
Givens, Warren Wheeler.....	De Kalb, Ill
Givens, Warner Hayes.....	De Kalb, Ill
Gove, Charles Frederic.....	Mechanicsburg
Gregory, William Moody.....	Elizabeth City, N. C
Grimes, Charles Wilson.....	Napoleon
Horst, David H.....	Winesburg
Hugenholtz, Paul.....	East Las Vegas, New Mexico
Minnich, J. F.....	Gratiot
Minnich, Otto William.....	Gratiot
McFarlane, Ellis.....	New Bedford, Pa
Oatman, William Frank.....	Dundee, Ill
Ohlemacher, John Jacob.....	Prout's Station
Owens, Walter Raleigh.....	Schumm
Patterson, Mrs. George T.....	—
Phillips, John Christopher.....	Akron
Pollock, Charles Hamilton.....	Mill Village, Pa
Reed, Jasper Robert.....	Yellow Springs
Roadamer, Harry.....	Selma
Robb, Wyman Speer.....	New Concord
Ross, Amos Lorin.....	Wooster
Smith, Elisha.....	Richville
Smith, William David.....	New Concord
Spencer, Silas McLaren.....	Chrome Hill, Md
Stoughton, Charles Peter.....	Alpine, N. Y

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE

GRADUATE STUDENTS—24

Brown, Frank.....	Columbus
Clements, Frank Orville.....	Westerville
Clum, George Victor, B. A.....	Mendota, Ill
Clum, John Ellsworth.....	Thornville
Collison, Frank Jerome, M. D.....	Columbus
Copeland, Sarah Foster.....	Columbus
Coursault, Jesse Harliaman, B. A.....	Columbus
Derby, Florence Harlow, B. Ph.....	Columbus
Fay, Mona L., B. Ph.....	Sidney
Flynn, Oscar R., B. Sc.....	Columbus
Frankham, Charles R.....	Westerville
Fullmer, Edward Lawrence, B. Sc.....	Defiance
Maag, Benjamin.....	Mt. Eaton
Milne, Alexander B. D. (Yale University).....	Columbus
McFadden, Thomas Gilbert.....	Dayton

Riddle, Lumina Cotton, B. Sc.....	Columbus
Rightmire, George Washington, B. Ph.....	Columbus
Smith, Alice May, B. Ph.....	Columbus
Snively, H. H.....	
Stevens, Frank Lincoln, B. S., M. S.....	Columbus
Talbot, Mignon, B. A.....	Columbus
Turner, Frederick Lewis, B. A.....	Columbus
Watson, Edward Thompson, B. Sc.....	Chillicothe
Williams, Herbert Oswald, B. A.....	Columbus
Winchet, Frances Isabelle, B. L. (Smith College).....	Dayton

FOUR-YEAR COURSES—324

	Course	Course Hours	Credit Hours	
Abbott, Roy A.....	E. Ph.	128	72	Columbus
Address, Edna Alice.....	†	.....	23	Birmingham
*Ayers, Lloyd C.....	Arts.	126	6	Findlay
Baird, Burgess Clay.....	L. Ph.	126	30	Troy
*Baldwin, Elizabeth Grant.....	E. Ph.	126	97	Columbus
Baldwin, Frederika Hull.....	E. Ph.	128	33	Columbus
*Ball, Danforth Ewers.....	Science.	126	30	Columbus
Bancroft, Gay, B. A.....	.....	.....	.....	Columbus
Barcus, Eliza.....	Arts.	126	46	Columbus
Barlow, Helen M., B. Ph.....	.....	.....	.....	Columbus
*Barnet, Clarence Elwood.....	E. Ph.	128	68	New Paris
*Barr, Fred W.....	E. Ph.	128	25	Brice
Beardsley, Orsamus Drake, B. Ph.....	.....	.....	.....	Garrettsville
*Beatty, Carrol E.....	E. Ph.	128	29	Columbus
*Beck, Edwin Long.....	L. Ph.	126	24	Lithopolis
*Beekman, Minnie Rose.....	Arts.	126	28	Columbus
Bell, Florence Louise.....	E. Ph.	128	69	Columbus
*Bell, John Everett.....	Arts.	126	77	Ripley
*Bevard, Olive Blanch.....	E. Ph.	128	47	Columbus
Blair, Kate Ruth.....	†	.....	15	Wilmington
Bock, Harrison William.....	†	.....	79	Canton
Bodman, Mary Elizabeth, B. Ph.....	.....	.....	.....	Bement, Ill.
Bostwick, Homer Z.....	Arts.	126	60	Columbus
*Boyer, Anna Marie.....	E. Ph.	128	60	Columbus
Brandt, James Herbert.....	Arts.	126	98	Greencastle
*Bratton, Alice May.....	E. Ph.	128	24	Columbus
Brelsford, Harley, B. Ph.....	.....	.....	.....	Christiansburg
*Brooks, Stanley Grange.....	Science	126	15	Columbus
*Brown, Albert Marion.....	Arts.	126	24	Wauseon
*Brown, Haywood Gale.....	Arts.	126	48	Dayton
*Burnett, Whittier.....	L. Ph.	126	70	Waynesville
*Burris, Margaret May.....	L. Ph.	126	16	Columbus
*Butcher, Fredric Eric.....	E. Ph.	128	64	Buckland
Butler, Blanche Woodruff.....	Arts.	126	32	Wellsville
Butterworth, William Hartwell, B. A.....	.....	.....	.....	Columbus
Canfield, Dorothea Frances.....	L. Ph.	126	84	Columbus

*Preparatory work incomplete.

†Irregular—not candidates for degree.

	Course	Course Hours	Credit Hours	
Chamberlain, Robert M.....	Science	126	25	Columbus
*Chambers, Henry Brooks.....	M. L. Ph.	126	16	Cambridge
*Clagett, Wilson Grafton	L. Ph.	126	21	Dayton
Clum, Harry Ernest	E. Ph.	126	99	Thornville
*Cockins, Rutherford Hayes	E. Ph.	126	90	Columbus
Colgan, Lillian Katherine.....	Arts.	126	29	Columbus
*Collins, Walter Scott.....	Arts.	126	36	Columbus
*Connor, Alice Marie	E. Ph.	128	55	Columbus
*Connor, Ellen Josephine.....	E. Ph.	128	68	Columbus
Converse, Walter	Arts.	126	90	Plain City
Corner, Daisy.....	L. Ph.	126	60	Columbus
*Corner, Edith	L. Ph.	126	24	Columbus
Coursault, Ida M.....	E. Ph.	128	99	Columbus
*Courtright, Elizabeth Pauline.....	Arts.	126	42	Columbus
Courtright, Stella Van.....	L. Ph.	126	29	Columbus
Courtright, J. Loring.....	Arts.	126	70	Circleville
*Crawford, Mary B.....	E. Ph.	128	62	Blaine
*Creamer, Ausel Brooks.....	Science.	126	49	Jeffersonville
*Cummings, Lawrence Belding.....	Arts.	126	24	Columbus
*Cureton, Benjamin Fletcher.....	Arts.	126	46	Columbus
*Curran, Bernard Franklin.....	Science.	126	54	Corning
*Darst, Otto Custer	Arts.	126	9	Columbus
Davis, Amy King.....	†	....	...	Columbus
Davis, Ivy Belle.....	†	....	24	Columbus
DeFrees, John Kessler	Arts.	126	37	Troy
*DeGolley, Lloyd Parsons	Arts.	126	21	Mt. Gilead.
*Dever, Louisa	M. L. Ph.	126	37	Portsmouth
DeWitt, Maud Mary.....	Science.	126	63	Sandusky
Dickinson, George Codwise.....	Arts.	126	36	Columbus
*Dickinson, Thomas Herbert	E. Ph.	126	101	Columbus
Dietrich, George Craig, B. Ph .....	.....	....	...	Piketon
*Dill, Augusta Dille.....	E. Ph.	128	69	Columbus
Doan, Frank Carleton, B. Ph.....	.....	....	...	Nelsonville
*Dowd, Charles Fuller	M. L. Ph.	126	62	Toledo
Dowd, George Kurtz.....	Arts.	126	110	Toledo
Dufour, Alice.....	†	....	21	Columbus
Dun, Katherine Thompson.....	†	....	26	Columbus
*Durbin, Samuel Clyde	E. Ph.	128	68	McConnelsville
*Durstine, Florence Sarles.....	Arts.	126	34	Columbus
*Dwyer, Robert.....	Arts.	126	...	London
*Eagleson, John Hervey.....	Arts.	126	56	Columbus
Eagleson, Joseph Pentecost	Arts.	126	49	Columbus
Eisenbise, Bertha.....	E. Ph.	128	63	Columbus
*Eisenlohr, Berthold August, B. Ph.....	.....	....	...	Cincinnati
*Enlow, Charles Bates.....	E. Ph.	128	62	Bridgeport
Euans, William Weldon	E. Ph.	128	48	Columbus
Ewalt, Clara Converse.....	E. Ph.	128	33	Columbus
Faurot, Ethal Edward	E. Ph.	128	11	Peru, Ind.
*Feibel, Louis.....	E. Ph.	128	20	Hillsboro

*Preparatory work incomplete.

†Irregular—not candidates for degree.

	Course	Course Hours	Credit Hours	
*Feick, Clara Sophie.....	Science.	126	26	Sandusky
Feiel, Ida Louise, B. Ph.....	.....	.....	.....	Columbus
Fergus, Oma Leona.....	†	.....	16	Humboldt, Neb.
Fischer, Robert, B. Sc.....	.....	.....	.....	Columbus
*Fisher, Ida May	L. Ph.	126	58	Columbus
Fitterer, John Conrad, B. Sc.....	.....	.....	.....	Butler
Ford, Ruth Lanissa, B. A.....	.....	.....	.....	Ashtabula
Ford, Stanley Hamer, B. Ph.....	.....	.....	.....	Columbus
Fox, Ross Garfield.....	E. Ph.	128	45	Columbus
Fullerton, Charles Hayward, B. Ph.....	.....	.....	.....	Wheetersburg
Gamper, Hattie.....	M. L. Ph.	126	66	Columbus
Garber, Levi Lucius, B. Ph.....	.....	.....	.....	Bellville
*Gayman, John	E. Ph.	128	17	Can. Winchester
Geren, Helen Oneta.....	E. Ph.	128	52	Columbus
*Gordon, Sarah Bryarly.....	Arts.	126	18	St. Mary's
*Gorman, Edward Albert.....	Arts.	126	20	Columbus
*Graham, Reuben Jacob.....	Arts.	126	18	Northup
Gray, Genevieve, B. Ph.....	.....	.....	.....	Columbus
*Green, Nellie Vitura.....	L. Ph.	126	54	Columbus
Greener, Gussie Howe.....	L. Ph.	126	32	Columbus
Gruen, Frank William	E. Ph.	126	89	Columbus
Haigler, Charles Edmund, B. Sc.....	.....	.....	.....	Jeffersonville
*Hambleton, Ethel Ada	L. Ph.	126	32	Columbus
Harris, Charles Pearl	E. Ph.	128	78	West Liberty
Harrop, Herbert B., B. Sc .....	.....	.....	.....	Columbus
*Hartford, Martha Dudley.....	L. Ph.	126	64	Atlanta, Ga.
Hartsough, William Howard, B. Ph.....	.....	.....	.....	Columbus
Harvey, Florence Danford.....	B. Ph.	.....	.....	Mt. Perry
*Harvey, Lucy Manola.....	Arts.	126	29	Pomeroy
Harward, Arthur Byron.....	Arts.	126	50	Columbus
Hastings, Edwin G., B. Sc.....	.....	.....	.....	Austinburg
Hatton, Edna Bernice.....	L. Ph.	126	26	Columbus
*Hauk, Will Comrie.....	Arts.	126	29	S. Charleston
Hazelton, Bird, B. Ph.....	.....	.....	.....	New Straitsville
*Hazelton, Henson Marlow.....	E. Ph.	128	56	New Straitsville
*Henderson, Herbert B.....	M. L. Ph.	126	63+3	Laceyville
*Hendrixson, Alice.....	E. Ph.	128	64	Columbus
*Henry, George Garr.....	E. Ph.	128	86	Columbus
*Herrman, Bessie	E. Ph.	128	69	Worthington
Herns, Edith Selma, B. Ph.....	.....	.....	.....	Portsmouth
Herrick, Sara Ethel.....	L. Ph.	126	22	Wellington
*Hetsel, Frank.....	Arts.	126	15	Xenia
Heywood, Harry Nelson.....	E. Ph.	128	28	Wapakoneta
*Hicks, Nellie.....	Arts.	126	26	Centerburg
Hirsch, Rudolph.....	Science.	126	26	Columbus
Hoffman, Hattie De Long.....	E. Ph.	128	46	Columbus
*Holcomb, Harry John.....	Arts.	126	26	Columbus
*Holston, John George Frederick.....	Science.	126	8	Zanesville
Hoover, Fred. R.....	E. Ph.	126	86	Quincy
*Houghton, Henry Spencer.....	Arts.	126	40	Columbus

*Preparatory work incomplete.

†Irregular—not candidates for degree.

	Course	Course Hours	Credit Hours	
Howard, Anna Faye.....	Arts.	126	85	Columbus
Huffman, Lillian Stuart.....	L. Ph.	127	94	Columbus
*Huggins, Burch Delaplaine.....	L. Ph.	127	93	Hillsboro
*Hunt, Mary Fulton.....	L. Ph.	126	44	Columbus
*Hunt, Wallace Leedom.....	Science.	126	26	St. Paris
*Hunter, Anna Eliza.....	M. L. Ph.	126	10	Columbus
*Hunter, Edith Virginia.....	M. L. Ph.	126	18	Columbus
*Huston, Frank Arilda.....	Arts.	126	24	Columbus
*Jaynes, Allan Brown.....	E. Ph.	128	72	Columbus
*Johnson, George M.....	E. Ph.	128	5	New Straitsville
*Johnston, Charles Orsan.....	Arts.	126	12	Columbus
*Jones, John William.....	E. Ph.	128	31	Jackson
Jones, Richard Thomas.....	L. Ph.	126	72	Columbus
*Jones, Victor Waite.....	E. Ph.	128	33	Columbus
Karshner, George Melville.....	Arts.	126	55	Columbus
*Kauffman, Margaret Glenn.....	L. Ph.	126	19	Columbus
*Kauffman, Henrietta Christine.....	L. Ph.	126	24	Columbus
*Keating, David Thatcher.....	L. Ph.	126	72	Columbus
Kellerman, Karl Frederick.....	Science.	126	70	Columbus
Kellerman, Ivy, B. A.....	.....	.....	.....	Columbus
Kellicott, William Erskine, B. Ph.....	.....	.....	.....	Columbus
Kendell, Bernard Jacob.....	L. Ph.	126	59	Covington
Kinder, Gordan Donald.....	E. Ph.	128	49	Ottawa
*King, Robert James.....	Arts.	126	99	Zanesville
Kinkead, Robert Grant.....	†	.....	5	Kansas City, Mo.
Kirby, Harriet Rebecca, B. Ph.....	.....	.....	.....	Columbus
Knight, Caroline Estell.....	E. Ph.	128	56	Columbus
*Kohl, Clayton Charles.....	L. Ph.	126	50	Perrysburg
Kohr, Donald Alexis, B. Ph.....	.....	.....	.....	Westerville
Krumm, Herbert Zettler, B. Ph.....	.....	.....	.....	Columbus
Kugel, Daisy Alice.....	Science.	126	49	Sandusky
Lane, Quinton R., B. Ph.....	.....	.....	.....	Can. Winchester
*Leach, Herbert Van.....	E. Ph.	128	11	Wellston
Lehman, John Wesley.....	E. Ph.	126	94	Can. Winchester
*Lentz, Florence.....	M. L. Ph.	126	24	Marysville
*Lisle, Charles Howard.....	E. Ph.	128	49	Pataskala
Lisle, Dallas Gypsi.....	L. Ph.	127	98	Columbus
Lisle, Leslie Mac.....	L. Ph.	127	102	Columbus
List, Erma Alice.....	L. Ph.	126	76	Columbus
Logsdon, Carey Ligouri.....	L. Ph.	127	89	Columbus
Louchery, Edna Elizabeth.....	E. Ph.	.....	.....	Salem, W. Va
Luse, Jessie Edna.....	E. Ph.	128	84	Columbus
Lydenburg, Walter B., B. A.....	.....	.....	.....	Dayton
Lynas, Charles Edmund, B. A.....	.....	.....	.....	Columbus
Lynas, Caroline, R. A.....	.....	.....	.....	Columbus
*Lyons, Nellie.....	L. Ph.	126	16	Columbus
Mabee, Alphonso Benjamin.....	M. L. Ph.	126	26	Mansfield
Mann, Wilbur Edwin.....	L. Ph.	127	103	Morrisville
*Marriott, Robert Henry.....	Science.	126	30	Richwood

*Preparatory work incomplete.

†Irregular—not candidates for degree.

	Course	Course Hours	Credit Hours	
Martell, Leonard Roland, B. A.....	.....	.....	.....	Columbus
*Martz, Velorus	Arts.	126	32	Columbus
*Meade, Caroline Annis.....	M. L. Ph.	126	24	Columbus
Mickey, Blanche Dell, B. Ph.....	.....	.....	.....	Columbus
Miller, Fred. A.....	E. Ph.	128	31	Columbus
Miller, Gretchen Pauline.....	E. Ph.	128	70	Columbus
*Mills, Glendora.....	L. Ph.	126	58	Marysville
*Mills, Helen.....	L. Ph.	126	97	Gallipolis
*Mitzenburg, Allena May.....	L. Ph.	126	26	Columbus
Mock, Marcia Inez.....	L. Ph.	126	32	Columbus
Moon, Clarence Victor.....	L. Ph.	126	45	Farmer's Station
Moore, Edgar Howard.....	Science.	126	71	Columbus
Moss, Blanch, B. A. ....	.....	.....	.....	Columbus
Mullay, Rose B.....	†	.....	41	Columbus
Mumma, Marion W.....	Science.	126	34	Dayton
*Mundhenk, Herbert C.....	E. Ph.	128	75	Brookville
*Mundhenk, Ruth.....	Science.	128	109	Dayton
Munson, Theodore S., B. Sc.....	.....	.....	.....	Zanesville
Murdock, George Washington.....	E. Ph.	126	97	Carroll
*Murray, Edna Earl.....	E. Ph.	128	25	Columbus
*McAllister, Earl Saddler.....	E. Ph.	128	29	Columbus
*McCallum, Raymond.....	Science.	126	52	Dayton
*McDonald, Joseph Sylvester.....	E. Ph.	128	26	Rendville
McKinney, Frank Cowan.....	Arts.	126	38	Columbus
McLaughlin, Clarence Graham.....	L. Ph.	126	30	Columbus
McNeil, A. W.....	†	.....	.....	.....
Nash, Simeon.....	Arts.	126	32	Columbus
Nichol, Gertrude Belle.....	E. Ph.	126	107	Columbus
Ohlemacher, Dorothea Katherine.....	Science.	126	53	Sandusky
*Oppenheimer, Olive.....	Arts.	126	28	Alleghany, Pa
Orton, Samuel Toney.....	Science.	126	30	Columbus
*Osborn, Abner Andrews.....	Science.	126	60	Columbus
Osburn, Raymond Carroll, B. Sc.....	.....	.....	.....	Columbus
Outhwaite, Charles P.....	†	.....	24	Columbus
Palmer, Elmer Bennett.....	Science.	128	106	Columbus
Palmer, Fannie.....	Arts.	126	26	Columbus
Parker, John Bernard, B. A.....	.....	.....	.....	Danville
*Parmenter, William Watt.....	Arts	126	56	Mt. Vernon
*Parsons, George McLellan.....	L. Ph.	126	16	Columbus
*Patterson, Bertha Gildersleve	Arts	126	40	Columbus
*Pavlicek, Frank J.....	L. Ph.	126	32	Toledo
*Pemberton, Harvey Cannon.....	E. Ph.	128	57	Locust Grove
Pitts, Grace Lenore.....	L. Ph.	126	62	Columbus
*Poole, Loren Winfield.....	E. Ph.	228	26	DeGraff
*Porter, George Henry.....	L. Ph.	126	18	N. Philadelphia
Powell, Maria Elizabeth.....	Arts	126	85	Columbus
Prall, Anna Dickson, B. A.....	.....	.....	.....	Columbus
*Pulling, Margaret Glaze.....	L. Ph.	126	54	Columbus
Pumphrey, John Homer, B. Sc.....	.....	.....	.....	Clayton
Rasor, Samuel Eugene, B. Sc. ....	.....	.....	.....	Clayton

* Preparatory work incomplete.

† Irregular—not candidates for degree.

	Course	Course Hours	Credit Hours	
*Raymond, Maybelle.....	E. Ph.	128	16	Columbus
Raymond, Maud.....	E. Ph.	126	103	Columbus
*Rector, James Manary	Science.	126	10	Circleville
Redick, Mary Glisson, B. Ph.....	.....	.....	.....	Findlay
Redrow, Walter Leffingwell	Science.	126	68	Williamsburg
*Reeb, Margaret Katharine.....	E. Ph.	128	40	Columbus
Rees, Edith Celeste.....	Arts	126	32	Columbus
*Reese, David R.....	Arts.	136	29	Shawnee
*Reynolds, Benjamin Roy	L. Ph.	126	6	Columbus
Rice, Katharine.....	†	.....	6	Columbus
Rice, Mabel Elise, B. A.....	.....	.....	.....	Columbus
Rice, Mary Washington.....	Arts	126	99	Columbus
Rice, Susan Esther.....	Arts	126	95	Columbus
Richardson, William Waddle.....	L. Ph.	127	100	Columbus
Rickey, Tallmadge Archer	E. Ph.	128	62	Columbus
Rietz, Henry Lewis	Science.	128	105	Gilmore
*Roach, Simeon Andrew.....	L. Ph.	127	108	Chillicothe
Robbins, George A.....	E. Ph.	126	93	Columbus
*Robertson, Harry Bradbury..	E. Ph.	128	.....	Pomeroy
Robinson, Zella Vina, B. Ph.....	.....	.....	.....	Columbus
*Rockwell, Mary Fannie.....	E. Ph.	126	102	Columbus
*Roebuck, Carl Fletcher.....	E. Ph.	128	66	Dalton
*Rogers, Frank P.....	Arts	126	103	Columbus
*Rolf, Richard Weston.....	†	.....	6	Willoughby
Roney, Mary Malvina.....	L. Ph.	126	30	Columbus
*Russell, Sallie Mary	M. L. Ph.	126	2	Xenia
*Sackett, Carl Leroy.....	†	.....	32	Big Horn C., Wyo
*Sadler, Anna Belle.....	L. Ph.	126	21	Columbus
Sage, Edith W.....	†	.....	16	Columbus
Sayre, Charles Boyd.....	Arts	126	58	Columbus
Scarlett, Henry L.....	Arts	126	32	Columbus
*Schaff, Mae B.....	L. Ph.	126	54	Columbus
*Scott, Dudley.....	E. Ph.	128	55	Columbus
*Scott, Walter Abner.....	Science.	126	70	Fair Haven
Seney, George Eppert, Jr.....	†	.....	35	Toledo
Seymour, Raymond Jesse	Science.	126	64	Columbus
*Sharkey, Clare Griesmer.....	Science.	126	36	Eaton
*Shaw, Harry R.....	E. Ph.	128	34	Zanesville
Shield, Wallace Bates, B. A.....	.....	.....	.....	Kansas City, Mo.
*Shoop, Edith Adele.....	L. Ph.	126	26	Columbus
Shuck, Carey Lucas, B. Ph.....	.....	.....	.....	Vanlue
Shurtz, Olive L., B. Ph.....	.....	.....	.....	Columbus
Singleton, Charles T.....	E. Ph.	128	50	Columbus
*Skiles, Blanch Gertrude.....	†	.....	23	Shelby
Slaughter, Nellie Elizabeth.....	†	.....	37	Columbus
Smith, Albertine Charleen	E. Ph.	128	57	Columbus
*Smith, Virginia Roletta.....	E. Ph.	128	68	Columbus
Spencer, Ralph Oliver.....	Arts.	126	98	Columbus
Sperry, Wilmot, Jr.....	E. Ph.	128	23	Mt. Vernon

*Preparatory work incomplete.

†Irregular—not candidates for degree.

	Course	Course Hours	Credit Hours	
Sprague, William Ralph.....	E. Ph.	126	96	La Porte, Texas
*Steeb, Carl E.....	E. Ph.	126	98	Medina
*Stephenson, Bertram Sheaver.....	L. Ph.	126	24	Jackson
Stimson, Charles Leslie	Arts.	126	96	Columbus
*Stimson, George.....	Arts.	126	56	Columbus
*Strimatter, Albert	Arts.	126	64	Columbus
Sutherland, Margaret, B. Ph.....	.....	.....	...	Columbus
Sylvester, John E., Jr., B. Ph.....	.....	.....	...	McArthur
Talbot, Herbert Swan, B. Ph.....	.....	.....	...	Columbus
Taylor, Mrs. Sterling B.....	†	.....	3	Columbus
Tessier, Effie Helen.....	L. Ph.	126	61	Sandusky
Teter, Sumner.....	Science.	126	43	Columbus
*Thomas, Lawrence David.....	L. Ph.	126	56	Lancaster
*Thompson, King Gibson.....	Science.	126	29	Georgetown
*Tilton, Josephus Howard.....	E. Ph.	128	44	Jelloway
*Travis, John F.....	Arts.	126	45	Green Camp
Underwood, Ella, B. A.....	.....	.....	...	Columbus
Vance, Mary Grace, B. A.....	.....	.....	...	Columbus
Vornholt, Julius Franklin, B. A.....	.....	.....	...	New Bremen
*Ward, Lila Lucile.....	L. Ph.	126	32	Reynoldsburg
Warden, Hosea Gilford	E. Ph.	128	58	Columbus
*Weick, Carrie Rosina.....	Science.	126	54	Columbus
*Weld, Harry Porter.....	L. Ph.	126	52	Marysville
*Welling, Faith Cornelia.....	Arts.	126	34	Worthington
*Wells, Harry B.....	Arts.	126	7	Columbus
Wert, Edward Sleeser.....	E. Ph.	126	97	Dalton
West, Earle Downs	Arts.	126	64	Columbus
*Wildermuth, Andrew Le Roy.....	L. Ph.	126	42	Columbus
Williams, Caroline Louise .....	†	.....	30	Austin, Texas
Williams, Eliza Young.....	Arts.	126	23	Pomeroy
*Williams, Clara Maude.....	M. L. Ph.	126	48	Columbus
Williamson, Edward Bruce, B. Sc.....	.....	.....	...	Bluffton, Ind.
Wilson, Stella Shoemaker.....	†	.....	34	Columbus
Wilson, Louis Ernest.....	E. Ph.	128	38	Columbus
*Worcester, Wood Frank.....	E. Ph.	126	105	Columbus
*Wright, M. James	Arts.	126	72	Worthington
*Young, Arthur Sprague	E. Ph.	128	31	Geneseo, Ill
*Young, John Wesley	L. Ph.	127	102	Columbus
Young, Mary Grace	M. L. Ph.	126	68	Mt. Vernon

COURSE PREPARATORY TO LAW AND TO JOURNALISM—30

	Course Hours	Credit Hours	
*Aldrich, Daisy Pearl.....	†	29	North Columbus
*Baldwin, Harry John.....	98	29	Beverly
*Bradford, William Shubrick	98	31	Columbus
*Bradrick, Lura Edith.....	†	16	Columbus
*Brooks, Narena	98	20	Zanesville
*Burgess, James Henry.....	†	30	Big Horn, Wyo

† Preparatory work incomplete.

† Irregular—not candidates for degree.

	Course Hours	Credit Hours	
* Cannon, Anna Catharine	98	28	Columbus
* Clouse, Jacob Ralph	98	...	Loudonville
* Creamer, Fred Byron	98	20	Washington C. H.
* Danner, Mary B.	98	33	Canal Fulton
* Determan, Hugo Philip	98	32	Columbus
* Evans, Thomas Daniel	98	22	Newark
* Flanagan, Curran E.	98	...	Kenton
Fowler, Verna Jacqueline	†	21	Columbus
Gayman, Charles Welton	†	38	Canal Winchester
* Grant, Earl Cranston	98	11	Grove City
* Hare, Walter Benjamin	98	21	Columbus
* Hatcher, Albert Lawrence	98	24	Kingston
* Hemley, Dudley Custer	98	15	Toledo
* Laybourn, Lawrence E.	98	19	Springfield
* Leonard, Wellington Taylor	98	35+12	Mansfield
* Minshall, Thaddeus Ellis	98	51	Chillicothe
Robinet, Henry Scott	98	...	Pataskala
* Sharp, Stephen Albert	98	47	Lowell, Kan
* Skiles, Roscoe Carleton	98	50	Shelby
* Sparks, Homer H.	98	21	Columbus
* Thrall, Mary Josefa	98	53	Carey
* Ulsamer, Fritz Martin	98	...	Gallipolis
* Veneman, Nevin Edward	98	24	Dayton
* West, Frederick Rollin	98	36	Columbus

COURSE PREPARATORY TO THE STUDY OF MEDICINE—9

	Course Hours	Credit Hours	
* Anderson, John Milton	101	44	Greenville
Baldwin, Hugh Allen	101	100	Columbus
Defenbacher, John Frederick	101	34	Canal Dover
* Dollison, Harvey Clinton	101	72+2	Zanesville
Faeth, Victor Peter	101	58+4	Bucyrus
Hill, Walter Centennial	101	97+12	Berlin Heights
McDonald, Daniel Moore	101	53	Wellsville
Neiswender, Lisle W.	101	34	Grove City
Williams, Horton	101	73	Worthington

COLLEGE OF ENGINEERING

GRADUATE STUDENTS—2

Fox, John Herbert, M. E.	Lucas
Judd, Horace, M. E.	South Hadley Falls, Mass

* Preparatory work incomplete.

† Irregular—not candidates for degree.

FOUR-YEAR COURSES—265

	Course	Course Hours	Credit Hours	
Arnold, Edwin Ebert, M. E.....	.....	.....	...	Zanesville
* Atkinson, Warren.....	M. E.	220	93	Greenville, S. C
Auten, Robert Love.....	Ind. Arts.	202	24	Fredericktown
* Bailey, Edward Harding.....	M. E.	220	30	Damascus
* Balz, Ernest.....	C. E.	212	35	Columbus
* Bargar, Frederick Chase.....	M. E.	220	23	Columbus
Barnaby, Charles London, C. E.....	.....	.....	...	Columbus
Barrie, James White.....	C. E.	212	117+9	Ashland
Barringer, Lawrence Eugene.....	Ceramics.	207	107+5	Wash'gton, D. C
Barrows, Harry Holbrook, C. E.....	.....	.....	.....	Columbus
Bishoff, John Wallace.....	E. M.	208	138+11	Elk G'den, W.Va
Blake, John Tower.....	C. E.	212	64	Canton
Bleining, Albert Victor.....	Ceramics.	207	78+31	Cleveland
Blesch, Carl Edward.....	M. E.	220	32	Columbus
Blose, Miller L.....	E. E.	216	158	Urbana
Boehme, Adolph Joe.....	M. E.	220	50	Youngstown
* Bogardus, Evert.....	M. E.	220	25	Mt. Vernon
Borger, Charles S.....	M. E.	220	52+8	Columbus
Bott, George Robert.....	M. E.	220	46	Columbus
Bowditch, John Henry.....	C. E.	212	55	Tracy
Bradley, William Hay.....	M. E.	220	52	Shelby
Braun, Joseph George.....	Special.	.....	5	Columbus
Brophy, James Francis.....	E. M.	208	139	Elk G'den, W.Va
* Brown, Ernest Edwards.....	Chemistry.	202	64	Columbus
Brown, John Quincy.....	M. E.	220	191	Ironton
Brown, Wallace S.....	M. E.	220	10	Poland
Bryant, Phillip Earnest.....	E. E.	217	126	S. Haven, Mich
Buchenberg, Alvin Earnest.....	E. E.	216	162	Holgate
* Butler, William Lawrence.....	Ceramics.	207	9+6	Wilkes Barre, Pa
Butterworth, Robert Burns.....	E. E.	220	66	Columbus
* Bygate, Harry Goldsmith.....	M. E.	220	163+2	Steubenville
Cain, John.....	E. E.	220	58	Urbana
Cameron, Harry Ezra.....	C. E.	212	53	Lisbon
* Cavanaugh, Andrew Francis.....	M. E.	220	109	Dayton
Chandler, Arthur Bernard.....	Ceramics	207	29	Steubenville
* Chandler, Fred.....	Ind. Arts	202	19+7	Salem, Va
Chappell, Walter Evans, E. E.....	.....	.....	.....	Barnesville
* Childs, Maxwell.....	E. E.	220	4	Troy
Clark, Clarence Julian.....	C. E.	211	127+16	Wilberforce
* Clark, Leonard Knight.....	M. E.	220	.....	Columbus
Claypoole, Albert.....	M. E.	220	150+3	Columbus
Clegg, Richard Lincoln.....	†	.....	46	Peoria
* Clevenger, Joseph Franklin.....	Ind. Arts.	202	47	Fletcher
Coe, Maurice Allen.....	†	.....	4	Buena Vista
Cook, Herbert.....	†	.....	5	Columbus
* Cooke, Royal Alston.....	E. E.	220	60+5	Wyoming
Cosley, Harvey Harter.....	C. E.	212	53	Troy
Crabill, Pearl.....	M. E.	220	53	Springfield

* Preparatory work incomplete.

† Irregular—not candidates for degree.

	Course	Course Hours	Credit Hours	
Crabbe, Arthur.....	C. E.	212	79	Columbus
*Crumley, Cloise Hamilton	E. E.	220	51	Lancaster
Curtis, Leigh Goodrich	C. E.	211	104	Hamilton
Deap, Edgar W.....	E. E.	220	43+2	New Lexington
*Debs, Victor Albert.....	E. M.	208	64	Mt. Vernon
Denny, Charles Wanpler	E. E.	220	46	Middletown
DeWolf, Roger Dennison	E. E.	220	54+2	Madison, Ga
*Dierdorff, Percy Cyrus	E. M.	208	17+5	Columbus
Dill, Raymond.....	E. E.	220	57	Columbus
Donham, Albert	M. E.	220	146	Lindale
Duke, Carl Lewis.....	E. E.	217	104+6	Ridgeville
Dunlap, Robert Rouse.....	E. E.	217	108	Columbus
Elliott, Homer Philander	E. E.	217	114+6	Columbus
Engensperger, Albert.....	M. E.	220	83+3	Springfield
Enos, Earl E.....	C. E.	211	145	Defiance
*Erdmann, William.....	Ind. Arts.	205	127	Chillicothe
*Espy, Frank.....	E. E.	220	11+5	Kenton
Estep, Frank Leslie, E. E.....	.....	.....	.....	Jeffersonville
Fergus, Guy Carlton, E. E.....	.....	.....	.....	Tadmor
Fickes, Walter M.....	Ceramics.	207	96	Steubenville
Fish, Fred Alan E. E.....	.....	.....	.....	Milan
Flynn, Benjamin Harrison, C. E.....	.....	.....	.....	Columbus
*Follett, George Alfred	C. E.	212	38	Columbus
Fonts, Edgar W.....	E. E.	220	54	Piqua
*Forsyth, William Dennison	C. E.	212	5	Columbus
Frame, Rollo St. Clair	C. E.	212	51	Washington
Frankenberg, John Theodore	E. E.	216	162+4	Columbus
*Fravel, John Henry.....	E. E.	220	13	Columbus
Frechtling, Arthur George.....	M. E.	220	54	Hamilton
Freeman, George Doane, Jr	E. E.	216	173	Columbus
Freeman, Stanton Sholes, E. M.....	.....	.....	.....	Columbus
Frost, George Winfield	M. E.	220	106	Columbus
Gamper, Herman.....	M. E.	220	165	Columbus
Ganson, Edwin R.....	E. E.	220	69+2	Columbus
*Gates, William Paul	Ceramics.	207	75	Hinsdale, Ill.
George, Robert G.....	E. M.	208	...	Piqua
Geren, Harry Ogden.....	E. E.	217	148+21	Columbus
Gilchrist, Edward Luce.....	E. E.	220	27	Ashtabula
Gordon, Harry J.....	†	.....	...	Oak Harbor
Gottwald, Christian.....	E. E.	217	102	Defiance
Graham, Emory Eugene, E. E.....	.....	.....	...	Richwood
Graham, Frank.....	E. M.	208	29	Columbus
*Graham, Harry.....	E. M.	208	30+12	Columbus
Grate, Charles A., M. E.....	.....	.....	...	Yale
Green, Homer Stuart	E. E.	220	56	Raymond
*Green, Joseph Walter.....	E. E.	216	166	Dayton
Groves, John Wesley, C. E.....	.....	.....	...	Batavia
Hager, Le Roy William.....	C. E.	212	36	Piqua
Hale, Frederick James, M. E.....	.....	.....	...	Mogadore
Haly, William Stokes	C. E.	212	68	Napoleon

*Preparatory work incomplete.

†Irregular—not candidates for degree

	Course	Hours	Credit Hours	
Hance, Harry Thomas	Chem.	202	49	Columbus
Hapgood, Eugene Palmer	E. E.	220	43+3	Sabina
Harkins, Robert Rusk	M. E.	220	106	Columbus
Harshbarger, Elmer	C. E.	212	110+8	Jackson
*Hartley, Lowrie Claude	C. E.	212	88+2	Uniontown
Harward, Alvin Devius	E. E.	217	106	Gahanna
Hawkins, Harry Clyde	E. E.	216	202+3	Lima
Hayes, Robert Lee	E. E.	216	154	Columbus
Hayman, Will Clayton	E. E.	217	118+9	Holgate
Hedges, Benson Rice	M. E.	220	40	Columbus
Henderson, Adelbert Andrew, C. E. ....	.....	.....	.....	Olentangy
Henry, Carlton	E. E.	217	115	London
Hertner, John Henry	E. E.	216	174+6	Dayton
Hewitt, Strafford Reeves, E. E. ....	.....	.....	.....	Columbus
Hipple, John Merton, E. E. ....	.....	.....	.....	Jefferson
*Hord, Peyton Robert	E. E.	220	32	Marion
Houston, Frank King, Jr.	M. E.	220	...	Urbana
*Howard, Oscar David	E. E.	220	83	Circleville
Hunter, Madone Carington	E. E.	217	108+3	Norwich
Huntington, Arthur	M. E.	220	150	S. Charleston
*Hylton, Gratwoods Walter	M. E.	220	13	Springfield
*Jefferey, John Ralston .....	†	.....	73	Huron
Johnson, Earl S	E. E.	216	140	Plants
*Johnston, Milton Stevens	E. E.	220	63	Middletown
Jones, Arthur James, E. E. ....	.....	.....	.....	Fitz Henry, Pa.
Jones, Annie E. ....	†	.....	94	Columbus
*Jones, Howard Matin	E. E.	220	52	Marysville
*Jones, Herbert Q.	E. E.	220	53	Granville
Jorolemon, Raymond Asabel .....	†	.....	42	Cato, N. Y.
Kanmacher, Herbert, L.	C. E.	212	12	Columbus
Kanmacher, Samuel Houston	E. E.	220	108	Columbus
Kasley, Alexander Taylor	E. E.	216	147+15	Wheeling, W. Va.
Kettler, Frank Christian	C. E.	212	53	New Bremen
*King, Herbert Sumner	C. E.	212	116+7	Medina
*King, Roy Stevenson	M. E.	220	87	Xenia
Knecht, Arthur E., M. E. ....	.....	.....	.....	Cincinnati
*Knight, William Abner	M. E.	220	119	Columbus
Knouff, Oliver Morton	C. E.	212	38+2	Caldwell
Knox, Frank S.	E. M.	208	135	Columbus
Krumm, Louis Robert, E. E. ....	.....	.....	.....	Columbus
Lamb, Whitney Earl	E. E.	217	111	Commerc'l Point
Lee, Corliss Edgar	E. E.	216	162	Pugh Post Office
*Leighty, William Nevin	E. E.	220	...	Germantown
Leinbaugh, George Gurden	M. E.	220	97+3	Bellevue
*Lemon, Albert	E. E.	220	2	Millersburg
*Lesh, John Howard	M. E.	220	86	Louisville
Linebaugh, Jesse Joseph	E. E.	216	163	Pleasant Corners
Loeb, Arthur Emanuel	E. E.	217	125+2	Columbus
Loos, Charles Louis, Jr.	Ind. Arts.	202	95	Dayton

*Preparatory work incomplete.

†Irregular—not candidates for degree.

	Course	Course Hours	Credit Hours	
Lyon, Arthur Hollingshead.....	M. E.	220	103	Wauseon
*Machetanz, Augustus F.....	E. E.	220	...	Kenton
*Madden, Ernest	Ind. Arts.	202	59	Columbus
*Marckworth, Otto Stanley.....	Chem.	202	70	Cincinnati
Marietta, Harry Riefsnider.....	E. E.	220	33	Dayton
*Marsh, Charles Lawrence.....	C. E.	212	62	Urbana
*Marshall, Willard Beverley.....	E. E.	216	145	Piqua
Martin, John D., Jr.....	M. E.	220	90	New Straitsville
*Mason, Charles Filmore	E. E.	220	44	Columbus
*Melick, Neal Albert.....	C. E.	212	100	Columbus
Miller, Albert Arthur	E. E.	220	48+6	Zanesville
*Miller, George John	E. E.	220	16	Kenton
*Miller, Ralph Charles.....	E. E.	220	36+6	Zanesville
Minor, Pearl Arline.....	†	.....	...	Columbus
Morris, Clyde T., C. E.....	.....	.....	...	Columbus
Morris, Robert Hamilton	E. M.	208	46+12	Columbus
Myers, Albert B	E. M.	208	113	Columbus
McCabe, Hugh Auguste.....	M. E.	220	29+12	Columbus
McIntire, Alfred Heber, E. E.....	.....	.....	...	Mt. Vernon
McIntosh, Roscoe Everett	E. E.	220	41+3	Ravenna
McKee, Stanley Hayes	C. E.	211	157	Warren
Nauss, Ralph Wilty.....	Chem.	202	86	Greenville
Needham, Harry Smithson.....	M. E.	220	99+12	Columbus
*Neikirk, Jesse David.....	M. E.	220	7+5	Clyde
Nichols, John Lawrence Darvall.....	E. M.	208	78+37	Columbus
Nicholson, Charles Marion.....	E. E.	217	103	Columbus
Nold, John H.....	E. M.	208	102	Columbiana
Norton, Victor Clarence.....	C. E.	211	144	Southington
Nurian, Kerson.....	M. E.	220	151+15	Bulgaria
*Oatman, William Frank.....	C. E.	212	24+2	Dundee, Ill
*Oberlin, Edgar Garfield.....	C. E.	212	34	Massillon
*Ogbin, Clinton Vanneman.....	C. E.	212	65	Salem, N. J
Pabodie, Robert J.....	M. E.	220	163	Wyoming
Pace, Ernest James.....	C. E.	212	28	Columbus
*Peck, Louis Tucker.....	M. E.	220	73+3	Staunton, Va
Peppel, Samuel Vernon.....	Chem.	202	100+15	Leetonia
Peters, Arthur Edward.....	M. E.	220	153+14	Toledo
Phillips, William Marion.....	E. E.	217	93+11	Columbus
Poto, Frank B.....	Chem.	202	46	Alliance
*Powell, Frank Everson.....	C. E.	212	21+2	Columbus
Powell, Leslie Boyle.....	E. E.	217	80	Columbus
Pratt, Fred Kellogg.....	C. E.	212	99	N. Philadelphia
Ransom, Ralph P.....	M. E.	220	54	Mt. Vernon
Rawson, Levi.....	C. E.	211	160+12	Lisbon
*Richard, Arby Cyrus.....	M. E.	220	32	Ravenna
Riddle, Carlton.....	M. E.	220	164+13	Columbus
Robb, Daniel Lockwood.....	M. E.	220	88	Loveland
Roberts, Cyrus Swan, Jr., E. M.....	.....	.....	...	Columbus
Rogers, Rutherford Hayes.....	E. E.	220	27	Columbus

*Preparatory work incomplete.

†Irregular—not candidates for degree.

	Course	Course Hours	Credit Hours	
*Roth, George Lewis	E. E.	220	9	Port Clinton
*Roy, Charles Foster	E. M.	208	49+13	Glenroy
*Roy, Robert Dougherty	E. M.	208	90+18	Glenroy
Ruhlen, Carl Marbie, M. E. ....	.....	.....	...	Columbus
*Rutan, D. W.	M. E.	220	...	Mechanicsburg
*Ryland, Paul Dillen	C. E.	212	86	Columbus
*Sanderson, Ray Rochester	E. E.	220	28	Washingt'n C. H.
Saxbe, Harry Moodie	E. E.	217	67+2	Urbana
*Schantz, Karl Wileham	E. E.	220	23	Zimmerman
*Schreiber, George Ernest	E. E.	220	108	Ironton
Schreiber, John Martin	E. E.	216	161	Ironton
*Schreidt, Charles Edwards	M. E.	220	9	Mansfield
Seeds, Karl Beaver	Chem.	202	57+4	Columbus
Senter, Herbert Pike	C. E.	212	44	Columbus
*Seward, Russell M.	E. E.	220	21	Columbus
Sharp, John McDowell	C. E.	212	11	Columbus
*Shaw, Harry Laverdo	C. E.	212	27	Lorain
*Shepherd, Charles William	C. E.	212	92+6	Huron
*Sherman, John K.	C. E.	212	56	Columbus
*Sherwood, Frank Porter	E. E.	220	35	Ashtabula
Sherwood, Milton Worthington	M. E.	220	55	Hilliards
Shields, Samuel Mathers	Chem.	202	136	Steubenville
*Simpson, Harry Jerome	C. E.	212	36+3	Worthington
*Sims, Harry D.	Ind. Arts.	202	29	Columbus
Smiley, Emory Eldon .....	†	.....	101	Wellston
Smith, David William	C. E.	212	159	Ashland
*Smith, Thomas Jefferson	E. E.	220	41	New Lexington
Snodgrass, William Howard	E. E.	220	75	Marysville
Spencer, Frederick Furman	E. E.	217	89+6	Ottawa
Sprague, Clarence M.	C. E.	211	159	Summerford
Staley, Marcellus	E. E.	216	164+7	Dayton
*Stalter, Edward D.	C. E.	212	103+15	Columbus
Starbuck, Karl	E. E.	216	163	Barnesville
Stauffer, Clinton R.	E. E.	217	108	Lima, Ind.
Stone, Carleton Elijah	C. E.	211	159	Gallipolis
*Stultz, Francis Potts	C. E.	212	27+4	Zanesville
Sweeney, Paul Leslie	E. M.	208	11	Columbus
Tallmadge, Trafford B.	E. E.	220	31	Columbus
Taylor, Clifford Forrest	M. E.	220	6	New Albany
Taylor, George Edwin	E. E.	220	75	Marysville
*Tufts, Charles H.	E. M.	208	165+31	Maineville
Urban, Harry Marshall, C. E. ....	.....	.....	.....	Ashland
*Van Dyke, Clifford Steele	E. E.	220	42	Ansonia
*Van Horne, Samuel Richard	E. E.	220	40	Dayton
Van Ness, Nellie Rebecca .....	†	.....	83	Mechanicsburg
Voss, Harry Lincoln .....	†	.....	10	Colo. Sp'gs, Col.
*Vosskuehler, Joseph Henry	M. E.	220	129+5	Dayton
Waite, Ellison Guthrie	M. E.	220	26	Columbus
Watts, Arthur Simeon .....	†	.....	42+5	Zanesville
Weber, Frederick Clarence	Chem.	202	38	Evanston

*Preparatory work incomplete.

†Irregular—not candidates for degree.

	Course	Course Hours.	Credit Hours.	
Webster, Daniel Elijah.....	C. E.	212	36	East Liverpool
Webster, Ellison Godfrey.....	M. E.	220	41	Greenville, S. C.
Weick, Charles Wm., B. Sc. (Ind. Arts)...	.....	.....	...	Columbus
Weisman, Howard Allen.....	†	.....	3	Columbus
Wheaton, Robert John.....	E. E.	220	30	Columbus
Whitaker, George Eliot.....	C. E.	212	44	East Liverpool
Whitaker, William Earl.....	C. E.	212	31	Wauseon
Whittemore, George Foster.....	E. E.	220	40	Keene
Williams, Alwin Zellige.....	†	.....	33	Chicago
*Williams, Benjamin Seeds.....	M. E.	220	21+16	Lockbourne
*Williams, Frank E.....	E. E.	220	18	Columbus
Williams, Fred Richard.....	E. E.	216	151+8	Columbus
Williamson, Homer Davison.....	E. E.	220	73	Monroe
Wilson, James Somerville.....	M. E.	220	110+12	Columbus
Wirthwein, Louis Philip.....	C. E.	211	159	Columbus
Wise, Albert Joseph, C. E.....	.....	.....	...	Suffield
Wonder, Homer Higgins.....	Chemistry.	202	29	Carey
*Zbinden, Herman Christian.....	C. E.	212	45	Toledo

ARCHITECTURE—11

	Course Hours.	Credit Hours.	
Fenimore, Edward Compton.....	154	73+3	Columbus
Grimm, Arthur Adin Hibbs.....	154	20+33	Columbus
Howell, Carl Eugene.....	154	95+39	Columbus
*Mills, James Dwight.....	154	69+26	Columbus
*Robbins, Frank Smith.....	154	27	Middletown
Scott, Cyrus Ellison.....	154	6	Columbus
Steinle, Charles Frederick.....	154	56+2	Fremont
Thomas, David A. P.....	154	38	Columbus
*Weiland, John.....	154	83+9	New Lexington
Wight, Frank Ernest.....	154	90+15	Columbus
*Worcester, Wolsey G.....	154	47+40	Columbus

SHORT COURSES

CERAMICS—12

	Course Hours.	Credit Hours.	
Berkey, Leslie Reese.....	90	26+5	Bolivar, Pa
Biglow, Ernest Osborn.....	90	43+20	West View
Butler, John Francis.....	90	46+20	Austin, Texas
Cambell, Augustine Ray.....	90	90	Metuchen, N. J
Crooks, George Henry.....	90	20	Zanesville
Davis, George A.....	90	35+6	Shawnee
Davis, Thomas John.....	90	30+19	Girard
Gerke, Karl Bertram.....	90	75+9	Quincy, Ill
Post, Malcolm Phelps.....	90	45+6	St. Louis, Mo

*Preparatory work incomplete.

†Irregular—not candidates for degree.

Purdy, Ross C.....	90	90+30	Buffalo, N. Y
Reed, Robert Carter.....	90	20	Portsmouth, Va
Simcoe, George.....	90	26	North East, Md

INDUSTRIAL ARTS—2

	Course Hours.	Credit Hours.	
Jacobs, Ronald.....	96	37	Columbus
Walker, Edward N.....	96	26+4	Flushing

MINING—11

	Course Hours.	Credit Hours.	
Alkins, Albert E.....	91	27+4	Wayne, Pa
Anderson, Arthur.....	91	86+18	Shawnee
Bohm, Oscar Herman.....	92	42+5	Cleveland
Evans, Charles Hopkins.....	92	10	Evanston
Harrigan, Archer.....	92	40	New Castle, Pa
Harrigan, Patrick.....	91	89+3	Darlington, Pa
Heaton, Marion Timer.....	92	35	Vigo
Higgins, George E.....	92	18+5	Columbus
Neale, Arthur.....	91	78	Monarch
Partridge, Bert Mitchell.....	92	20	Flint
Sigrist, Charles Ferdinand.....	92	15	Congress

COLLEGE OF LAW

FIRST YEAR—60

Adams, Judson J.....	Dresden
Addison, Arthur Everet, B. Ph.....	Columbus
Addison, Clarence Maywood, B. Ph.....	Columbus
Arnold, Harry Crumley.....	Columbus
Benedict, Charles Yeddo.....	Mansfield
Bininger, James Wolfgong.....	Lancaster
Brumbaugh, Robert Nevin.....	Dayton
Cook, Van C., B. S. (Hiram College).....	Syracuse, Kans
Crawford, William Harry.....	Massillon
Dalzell, Raymond.....	Shepard
Darby, Roscoe Bryant.....	Wauseon
DeWitt, Claude B.....	Sandusky
Downing, Earl Summerville.....	Middleport
Du Bois, Aaron Smock.....	Franklin
Evans, Edwin Brown.....	Troy
Farnham, Harry Rathburn.....	Edgerton
Field, George Alexander.....	Ashtabula
Forsythe, John Lewis.....	Cumberland
Friedlich, Alfred.....	Troy
Goddard, Edwin Newell.....	Ashtabula
Gregg, William Brough.....	Bradner
Guitteau, William Backus.....	Toledo
Holland, Edward Leo.....	London

Hoover, Fred R.....	Quincy
Hughes, James Clare.....	Piqua
Jones, Bertram George.....	Columbus
Jones, John Howard.....	Granville
Kingsbury, Nathan Corning.....	Columbus
Lane, Quinton R.....	Canal Winchester
Lathem, Chester H.....	Columbus
Leslie, John O'Neil.....	Warren
Malone, Francis Eastman.....	Conneaut
Mattingly, Herbert Howard.....	Celina
Mays, James Wesley, B. Ph.....	South Point
Morris, Ingle Alman.....	Columbus
Mullamy, James Jackson.....	Columbus
Murphy, Frank Hayes.....	New Comerstown
McCleary, Clayton Asa, B. Ph. (Franklin College).....	Science Hill
McClure, Robert Edward.....	Dayton
McCray, Thomas Yates, Jr.....	Mansfield
Nicholas, William Renfrew.....	Columbus
Nicola, Benjamin Di.....	Barnhill
Oldham, Jay Leslie.....	Springfield
Peck, Foreman Jacob.....	Clarksburg
Rankin, Walter Scott.....	Columbus
Reeves, Claude John.....	Columbus
Rightmire, George Washington, B. Ph.....	Wheetersburg
Robinson, Charles Grier, A. B. (Green Springs Academy).....	Rockaway
Sharp, James Rice.....	Columbus
Southworth, Ferdinand Leek.....	Alliance
Steele, Sherman, B. L. (Notre Dame).....	Columbus
Taylor, Everett Buren.....	New Albany
Voegele, William Frederick, Jr.....	Mansfield
Watkins, Howard Rice.....	Blanchester
Wertz, Edward Sleser.....	Dalton
Wheeler, Newberry William, Jr.....	Portland
Williams, Lloyd Thomas, B. Ph.....	Jackson
Wood, Edward Franklin.....	Hadley, Ind
Wright, Burr Roscoe, B. Ph.....	Peebles
Yockey, Paul B., B. A.....	Columbus

SECOND YEAR—44

Allen, Edward Harrison, A. B. (Harvard University).....	Lena
Archer, Benjamin Tone.....	Cincinnati
Austin, John Gustave, S. B. (Ohio Normal University).....	Sparta
Ball, George Gaylord.....	Columbus
Barrere, George Nelson.....	Columbus
Bond, Charles Grosvenor.....	Columbus
Brewer, Charles Reed.....	Bowling Green
Brewer, Claude Leon.....	Columbus
Dille, Charles Wallace.....	Nottingham
Doup, Henry Harris.....	Democracy
Dungan, Lewis.....	Jackson
Emmerling, John Valentine.....	Wauseon
Flory, Charles Louis.....	Newark

Foster, Israel Moore.....	Athens
Game, Reed Haskell.....	Canal Winchester
Godown, Joseph A.....	Hilliards
Gross, Charles John.....	Dayton
Gruen, Frank William.....	Columbus
Hough, Benson Walker.....	Delaware
Lacey, Emmet.....	Columbus
Mauck, Earl Wayland.....	Kyger
Milligan, Charles Clinton.....	Gnadenhutten
Minshall, William Edwin.....	Chillicothe
McCoy, Frank Lewis.....	Salineville
McKemy, Harry Glenn.....	Dayton
McLaughlin, Charles Albert.....	Bel. efontaine
Orton, Walter Edwin.....	Williamstown, Mass
Outhwaite, Singleton Peabody.....	Columbus
Pease, Edward Livingston, A. B.....	Columbus
Postlewait, Neal, A. B. (Northern Indiana University).....	Valier, Pa
Price, Thomas Daniel.....	New Straitsville
Purpus, Theodore Jacob.....	New Bremen
Schlesinger, Hugo Nathan.....	Xenia
Smith, Warren Lee.....	Columbus
Sprague, Charles Franklin, B. A.....	Wapakoneta
Strecker, George William.....	Marietta
Street, Herman, Jr.....	Columbus
Stough, Luther Bertrand.....	Bellefontaine
Stubbs, Isaac Ellsworth.....	Pugh
Weaver, David Sherman.....	Columbus
Weidling, Carl Phillip.....	Tiffin
Welsh, Harford Burnette.....	Columbus
Westcott, Rufus Austin.....	Grigg's Corners
Wildermuth, Andrew LeRoy.....	Columbus

THIRD YEAR—44

Appleby, Calvin William.....	Conneaut
Baker, James Burt, Ph. M. (Mt. Hope College).....	Salem
Baker, John Ezra, B. A.....	St. Paris
Beem, Chapin Burtin.....	Jersey
Bell, Harry Almer.....	Bloomington
Bock, Harrison William.....	Canton
Callender, Sherman Delivan.....	Harts Grove
Carson, Samuel George.....	Lordstown
Chittenden, Campbell Mithoff.....	Columbus
Crowley, Patrick Andrew.....	Columbus
Dakin, William Clarence.....	Sabina
Denbow, Alonzo Carlton.....	Beallsville
Dice, Jesse P.....	Akron
Fenner, Jesse Albertus, B. A. (Wittenberg College).....	Shiloh
Garst, William Augustus.....	Westerville
Gorman, John Michael.....	Defiance
Griffiths, Benjamin Lincoln.....	Vaughnsville
Hamilton, Orwell William.....	Locust Grove
Heacock, William Preston.....	Cardington
Hovey, Clark Samuel, A. B. (Buchtel College).....	Akron

Keenan, Eli E.....	Quaker City
Keller, Charles Artemus.....	Kenton
Krumm, Charles, S. M., B. Ph.....	Columbus
Layton, Verne Durand.....	Wapakoneta
Longbrake, Arthur Clyde.....	Marysville
Loomis, John Cooper.....	Tiffin
Mallory, Austin Garwood.....	Clarington
Marshall, Charles Cracraft.....	Sidney
Mendenhall, Eugene Warren.....	Columbus
Merrill, Charles Wesley.....	Granville
Middleswart, Clarence Coulter	Constitution
Monssarrat, Norton Slaughter	Columbus
Morgan, Eugene.....	New Lexington
Mull, Bert La Forrest, B. A. (Ohio Wesleyan).....	Columbus
Nevin, Charles Borland.	Dayton
Patchin, Rufus Harry.....	Chardon
Price, George Roger.....	Greenfield
Pryor, Charles Foster.....	Barnesville
Riegle, Vernon Milton.....	Cedar Hill
Sinks, Frederick Nicholas.....	Columbus
Smith, Edward Trevitt.....	Holden, Mo.
Sykes, William Edgar.....	Clarington
Ward, John Franklin.....	New Lexington
Wilcox, McAllister.....	Sunbury

COLLEGE OF PHARMACY

GRADUATE STUDENTS—I

Stump, William Lisle, G. Ph.....	Nashport
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FOUR YEAR COURSE—13

	Course Hours.	Credit Hours.	
Bancroft, Norman Ray.....	†	62	Columbus
Bowen, Charles Flood.....	206	84	Columbus
Burt, Charles Conaway.....	206	36	Coshocton
Canfield, Delos Wilford, Jr.....	206	65	Columbus
*Dunlap, Carl Reed.....	206	28	Columbus
Holloway, David Frank.....	206	82	Middletown
Huff, George Harry	206	97	Middletown
Kimberly, Charles Hubbell.....	206	83+24	North Fairfield
*Koons, Mary Royston.....	206	97	McConnellsville
Landacre, Walter Alexander.....	206	24	Columbus
*Peck, James Francis.....	206	34	Columbus
Sweet, Fred Watson.....	†	120	Columbus
Wagstaff, Harry Garfield.....	206	30+5	Niles

*Preparatory work incomplete.

†Irregular—not candidates for degree.

THREE YEAR COURSE—6

Bunnell, Larone Allen.....	Waynesville
Calkins, William Bartlett.....	Columbus
Logsdon, Clement Jay.....	Columbus
Moss, William.....	Buffalo
Smith, Clarence Elmer.....	West Brookfield
Somermeir, Edward Everett.....	Westwood

SHORT COURSE—37

	Course Hours.	Credit Hours.	
Barrick, Alfred Asberry.....	112	107+8	Columbus
Bevard, Eva Gertrude.....	112	45+51	Columbus
Bradshaw, Harry James.....	112	90+13	Columbus
Burr, Frank Henry	112	77+10	Columbus
Casper, John Fry.....	112	48	Springfield
Clelland, Franklin Pierce.....	112	35	Lockville
Culbertson, Claude Lanier.....	112	112+2	Zanesville
Day, Clayton Miller.....	112	55	Blanchester
Fisher, Perry Wallace.....	112	43	Wooster
Flinn, Eayre David.....	112	10	Sidney
Foster, George Gruel.....	112	18	Columbus
Freedman, Daisy.....	112	45+9	Jackson
Funk, Roy W.....	112	73	Chesterhill
Furnas, Joseph Morrill.....	112	...	Columbus
Graner, Carl.....	112	102+5	Oak Harbor
Helmick, Maynard E. J.....	112	13	Commercial Point
Hyde, Cyrus Olin.....	112	63+3	Columbus
Jewell, Frank Emerson.....	112	...	Cardington
Johnson, William Noel.....	112	53	Piqua
Kerr, Franklin Pierce, Jr.....	112	60	Columbus
Kunkel, Charles J.....	112	3	Columbus
Lallance, Leroy Armstrong, Jr.....	112	28	Wheeling, W. Va.
Lane, Eldon Earl.....	112	8	Columbus
Moore, Rodney Downing.....	112	112+14	Chardon
Morris, Harry Long.....	112	110	Springfield
McCann, Frank Hyacinth.....	112	82	Junction City
Naddy, Charles Joseph.....	112	43	Columbus
Oglesby, Nicholas Perkins.....	112	88+6	Lucretia, Va.
Oshe, Carl Magnus.....	112	85+2	Zanesville
Potter, Lewis Hall.....	112	75+6	Columbus
Rostofer, Freeman Allen.....	112	53	Pataskala
Sandoe, De Nevin.....	112	38+2	Columbus
Schilling, Robert Wilson.....	112	107	Jewett
Sellenings, Oscar.....	112	37+2	Chillicothe
Sovacool, Harry Grove.....	112	61	Columbus
Stephens, William Emery.....	112	98	Barnesville
Umberger, Lee.....	112	33	Wytheville, Va.

COLLEGE OF VETERINARY MEDICINE

GRADUATE STUDENTS—2

Boyd, James Grant, D. V. M.....	Columbus
Frederick, Charles Byron, V. M. & S. (Ontario College).....	Louisville

UNDERGRADUATES—15

	Course Hours.	Credit Hours.	
Cook, Charles Albert.....	177	...	Williamsport
Delaney, Frank	177	62	Van Wert
Detchon, Aubrey Bloxson	178	116	Youngstown
Eddy, William.....	177	57	East Cleveland
*Goddard, Harford Bishop.....	178	80+25	Dunham
*Griffin, Frank.....	177	49	Columbus
Hammond, Harry James.....	177	54	Sharon Center
Johnson, Theodore Charlemagne.....	177	44	Akron
*Moorehead, Robert Henderson.....	177	33+3	Zanesville
*Morrow, Charles James.....	177	54	Tiro
*McClelland, Robert Lyle.....	177	54	Andover
*Nunamacher, Norman C.....	177	36	Louisville
*Smith, Harry Milton.....	†	60+22	East Liverpool
*Sparhawk, William Theron.....	178	126	Tallmadge
Worcester, Warner	178	151	Columbus

SUMMER SCHOOL—80

1897

Aird, Grace Mary.....	Springfield
Arnold, Edwin Ebert	Zanesville
Behren, Lillian.....	Columbus
Bently, Irma.....	Columbus
Booth, Cora V.....	Columbus
Brooks, Faith.....	Columbus
Brown, Harold Warner.....	Columbus
Burgess, James Henry.....	Big Horn, Wyo.
Classon, Clayton D.....	Galena
Claypoole, Charlotte Lake.....	Columbus
Clymer, Jeremiah B.....	Mt. Vernon
Connell, Laura Jewell.....	Columbus
Crable, Arthur.....	Columbus
Davis, William E.....	Columbus
Deeter, Lillian.....	Covington
Doan, Frank Carleton.....	Nelsonville
Dufour, Alice	Columbus
Field, Frank William.....	Mt. Vernon

* Preparatory work incomplete.

† Irregular—not candidate for degree.

Foulke, Alice Elizabeth.....	Urbana
Fries, Albert Conrad.....	Grove City
Gilmore, William Henry.....	Millersport
Gladden, Alice.....	Columbus
Goodell, Alice B.....	Columbus
Goodwin, May.....	Kendallville, Ind.
Graham, Leonard Johnson.....	New Concord
Green, Homer S.....	Raymond
Haig, Mary.....	Columbus
Hammond, Bessie.....	Columbus
Hare, Alice D.....	Columbus
Harward, Arthur B.....	Gahanna
Herd, Emma A.....	Raymond
Huffman, J. Ross.....	Attica
Jones, Grace Lattimer.....	Columbus
Judd, Edith May.....	Columbus
Kanmacher, Herbert Lee.....	Columbus
Kauffman, Henrietta C.....	Columbus
Kauffman, Margaret Glenn.....	Columbus
Kelley, Alice Matilda.....	Kelley's Island
Kirby, Harriet R.....	Columbus
Lane, Fulton.....	Columbus
Miner, Cora Alnetta.....	Columbus
McElroy, Riley Park.....	Defiance
Nevin, Ella C.....	Columbus
Nida, William Lewis.....	Lincoln
Oldham, Jay L.....	Springfield
Osborn, Frank C.....	Columbus
Osborn, Liphe.....	Columbus
Palmer, Elmer Bennett.....	Columbus
Peppel, Samuel Vernon.....	Leetonia
Peters, Grace.....	Columbus
Pettit, Joseph Emery.....	New London
Powell, Blanche.....	Mt. Cory
Pumphrey, J. Homer.....	Clayton
Raymond, Maybelle.....	Columbus
Richardson, W. H.....	Holgate
Rickrich, Kate C.....	Newark
Roberts, Mary.....	Springfield
Rockwell, Mary Fannie.....	Columbus
Rodenfels, Katharine.....	Columbus
Rogers, Rutherford Hayes.....	Columbus
Sandoe, De Nevin.....	Columbus
Sessions, Elizabeth.....	Columbus
Shoemaker, Carrie O.....	Columbus
Skinner, Eleanor.....	Columbus
Smith, Anna M.....	Columbus
Smith, James Oliver.....	Columbus
Smith, R. B.....	Ripley
Starrett, Amy B.....	Columbus
Stewart, Gilbert H., Jr.....	Columbus
Stocks, Herbert.....	Gambier
Sweeney, Paul L.....	Columbus
Travis, John Francis.....	Green Camp

Voke, Cora.....	Columbus
Weaver, Edward Sheridan	Leipsic
Wilson, Stella S.....	Columbus
Wommelsdorff, Clara.....	Sandusky
Wommelsdorff, Ella.....	Sandusky
Wood, Lillian J.....	Columbus
Woelford, C. E.....	Trenton
Zartman, Ray V.....	Columbus

PEDAGOGICAL CONFERENCE—51

1897

Aberle, Mary.....	Mansfield
Bainter, Effie L.....	Columbus
Bancroft, Harriet.....	Columbus
Barrett, Charles Sumner.....	Columbus
Brown, Marshall Adelbert.....	New Madison
Bunker, Adelaide.....	Columbus
Carrick, Charles M.....	Wauseon
Corns, Harry.....	Columbus
Corson, Oliver T.....	Columbus
Coursault, Jesse H.....	Columbus
Criswell, Emma G.....	Columbus
Deeter, Lillian.....	Covington
DeLong, George Washington.....	Corning
Doan, Frank Carlton.....	Nelsonville
Evans, Sally.....	Alton
Farlow, Aarcha.....	Barlow
Fellows, Ada J.....	Columbus
Fickell, Henry Craig.....	Edison
Flynn, Oscar R.....	Columbus
Fowler, James Celwin.....	New Lexington
Garner, Clara	Columbus
Goodall, Alice.....	Columbus
Hall, Jeannette.....	Columbus
Henson, Morris A.....	McArthur
Hoffhines, Frank J.....	Columbus
Housel, Florence.....	Mansfield
Huffman, J. Ross.....	Attica
Hutcheson, Mary E.....	Columbus
Lazarus, Harriet J.....	Columbus
Long, John A.....	Chillicothe
Millay, Helen.....	Columbus
McCloud, Emma.....	Columbus
McClure, Charles W.....	Oxford
Neereamer, Cora.....	Columbus
Osgood, Anna M.....	Columbus
Peters, Alice.....	Columbus
Powell, Blanch	Mt. Cory
Powers, Milo Carl.....	Port Williams

Ruess, Bertha.....	Mansfield
Sells, Ida.....	Dublin
Sheppard, Leander William.....	Columbus
Shoemaker, Carrie O.....	Columbus
Snay, Maud E.....	Columbus
Starr, Lila.....	Columbus
Stephens, Ada.....	Columbus
Sutherland, Margaret W.....	Columbus
Warner, Ellis Fulton.....	Bellevue
Wilmot, Elnor H.....	Columbus
Wood, Lillian J.....	Columbus
Wood, Verlinda S.....	Columbus
Woolford, Charles Edwards.....	Trenton

GENERAL SUMMARY

COLLEGE OF AGRICULTURE AND DOMESTIC SCIENCE—

Graduate Students.....	3
Four-year Courses.....	68
Short Course in Agriculture.....	41
Short Course in Domestic Science.....	3
Dairying.....	29— 144

COLLEGE OF ARTS, PHILOSOPHY AND SCIENCE—

Graduate Students.....	24
Four-year Courses.....	324
Course Preparatory to Law and to Journalism.....	30
Course Preparatory to the Study of Medicine.....	9— 387

COLLEGE OF ENGINEERING—

Graduate Students.....	2
Four-year Courses.....	264
Architecture.....	11
Ceramics.....	12
Mining.....	11
Industrial Arts.....	2— 302

COLLEGE OF LAW—

First Year.....	60
Second Year.....	44
Third Year.....	44— 148

COLLEGE OF PHARMACY—

Graduate Student.....	1
Three-year Course.....	6
Four-year Course.....	13
Short Course.....	37— 57

COLLEGE OF VETERINARY MEDICINE—

Graduate Students.....	2
Undergraduates.....	15— 17
Summer School, 1897.....	80
Pedagogical Conference, 1897.....	51
Total.....	1,186

Names counted twice.....	36
Net total.....	1,150

SUMMARY BY COUNTIES.

Adams	3	Hamilton	7	Noble.....	1
Allen.....	3	Hancock	5	Ottawa.....	2
Ashland	3	Hardin.....	6	Perry	
Ashtabula	17	Harrison	5	Pickaway.....	6
Athens	5	Henry	5	Pike	1
Auglaize	10	Highland.....	5	Portage.....	8
Belmont.....	11	Holmes	2	Preble	3
Brown.....	4	Huron	7	Putnam	6
Butler.....	12	Jackson	10	Richland.....	16
Champaign.....	12	Jefferson	8	Ross	10
Clark.....	12	Knox	18	Sandusky	2
Clermont.....	4	Lake.....	1	Scioto.....	8
Clinton.....	9	Lawrence	5	Seneca.....	5
Columbiana	12	Licking	13	Shelby.....	3
Coshocton.....	3	Logan.....	8	Stark	16
Crawford	2	Lorain	9	Summit.....	6
Cuyahoga	5	Lucas	8	Trumbull	6
Darke	4	Madison	6	Tuscarawas	8
Defiance.....	5	Mahoning.....	6	Union	16
Delaware	4	Marion	4	Van Wert.....	2
Erie.....	18	Medina	7	Vinton	2
Fairfield....	13	Meigs.....	7	Warren	4
Fayette.....	7	Mercer.....	1	Washington.....	7
*Franklin	480	Miami	23	Wayne	11
Fulton	7	Monroe	3	Williams.....	1
Gallia	6	Montgomery.....	28	Wood	3
Geauga.....	4	Morgan	5	Wyandot	3
Greene	7	Morrow	5		
Guernsey.....	6	Muskingum.....	24		

SUMMARY BY STATES AND COUNTRIES

(As far as known.)

Bulgaria.....	1	Massachusetts	1	Ohio	1089
Colorado	1	Michigan.....	1	Pennsylvania.....	8
Georgia	2	Missouri	4	South Carolina.....	2
Illinois.....	8	Nebraska.....	1	Texas	3
Indiana	5	New Jersey.....	2	Virginia.....	5
Kansas	2	New Mexico	1	Washington D. C.....	1
Kentucky.....	1	New York	3	West Virginia	4
Maryland.....	2	North Carolina.....	1	Wyoming.....	3

* Nearly forty-two per cent. of the students registered from Franklin county are those whose homes are at Columbus only during their University course.

GRADUATES

Graduates

The faculty of the Ohio State University are anxious to place a copy of each annual catalogue in the hands of every graduate. They will esteem it a favor if any alumnus who changes his residence will notify the Executive Office of his new address and occupation. They will also be grateful for any information from any source, that may assist in making or keeping the Directory of the Alumni complete and correct.

ALUMNI ASSOCIATION

OFFICERS FOR 1898-99

EMILIUS OVIATT RANDALL, '92, Columbus.....	<i>President</i>
MRS. WILBUR H. SIEBERT, '84, Columbus	<i>Vice-President</i>
JOHN A. BOWNOCKER, '89, Columbus.....	<i>Secretary</i>
FRANK A. RAYMOND, '88, Columbus.....	<i>Treasurer</i>
ALBERTA D. GARBER, '89, Boston, Mass	<i>Orator</i>
JOSEPH S. MYERS, '87, Pittsburg, Pa	<i>Alternate</i>

COMMITTEE ON COLLEGE AFFAIRS

SCOTT ANDERSON WEBB, '88, Columbus.....	Term expires 1899
WALTER I. SEARS, '94, Chillicothe	" 1900
FLORIZEL SMITH, '80, Columbus	" 1901
MRS. HARRY J. ABBOTT, '93, Columbus	" 1902
LORING HAPGOOD GODDARD, '92, Sullivan, Ind.....	" 1903

COMMITTEE ON NECROLOGY

GEORGE S. MARSHALL, '94, Columbus	Term expires 1899
WILBY G. HYDE, '87, Chillicothe	" 1900
LOWRY F. SATER, '95, Columbus.....	" 1901

Directory.

A

- Ackerman, Eli Osborn, 1884, C. E., 2664 North High street, Columbus, Columbus Street Railway Co.
- Ackerman, Fremont, 1883, C. E., Los Angeles, Cal., civil engineer.
- Addison, Arthur Evert, 1895, B. Ph., Columbus, teacher South High School.
- Addison, Louis Granville, 1892, LL. B., Columbus, attorney-at-law.
- Addison, Clarence Maywood, 1896, B. Ph., Columbus, teacher Central High School.
- Agler, Eulalia, 1895, G. Ph., Columbus, with Columbus Pharmica Company.
- Albert, Louisa Mary, 1896, G. Ph., Mrs. A. E. Vinson, Columbus.
- Aldrich, Chester H., 1888, B. A., LL. B., David City, Neb., attorney-at-law.
- Aldrich, Edgar S., 1897, M. E. in EE., Fairmont, W. Va., electrician with Light and Power Co.
- Alexander, St. Clair, 1893, M. E. in EE., Bridgeport.
- Alexander, Charles P., 1896, M. E. in E. E., Letart Falls, teacher of science.
- Allaman, William Ernest, 1896, G. Ph., Brookville.
- Allen, Lucy, 1897, B. A., Columbus, library assistant, State University.
- Alsdorf, Percy Reed, 1896, E. M., Central City, Col., Standard Assay office.
- Alsdorf, Frederick Charles, 1892, E. M., Central City, Col., general manager, Duquesne Mining Co.
- Alspach, Rufus Edwin, 1897, M. A., (B. A. Heidelberg), Thornville.
- Anderson, James T., 1884, B. A., Colorado Springs, Col., 1st Lieutenant U. S. Army.
- Anderson, Newton M., 1879, B. Sc., Principal of the University School, Cleveland.
- Andrews, Albion Joseph, Jr., 1893, LL. B. (B. S., Ohio Wesleyan University), Zanesville.
- Andrews, Lincoln Elmer, 1893, LL. B., 1895, B. Ph., Columbus, attorney-at-law.
- Armstrong, Edna, 1897, B. Ph., Columbus.
- Armstrong, William H., 1890, G. Ph., Marysville, druggist.
- Arnold, Charles Lincoln, 1890, B. Sc., 1884, M. Sc., West Eighth ave., Columbus, assistant in mathematics, State University.
- Arnold, Edwin E., 1898, M. E., Zanesville.
- Atkins, G. Glenn, 1888, B. A., Greenfield, Mass., pastor Congregational Church.
- Auld, James A., 1897, M. E. in E. E., Columbus.

B

- Bachtell, Nellie May, 1895, B. A., New London, teacher.
- Backhaus, Henry Ward, 1894, B. A., St. Mary's.
- Baer, Philip, Jr., 1897, B. Sc., (Agr.) Gratiot, Creamery operator.
- Bagley, Anna Gertrude, 1894, G. Ph., Columbus.
- Baker, James Burt, 1898, LL. B., Salem.
- Baker, John Ezra, 1897, B. A., 1898, LL. B., St. Paris.

- Baker, William Hollister, 1892, B. Agr., Farmersville, Mo., farmer and stock raiser.
 Baldwin, Zoa Belle, 1896, B. A., Prospect, teacher in High School.
 Ball, Emma Leanna, 1895, B. Sc., 1896, M. Sc., Columbus, Fellow in Mathematics State University.
 Ball, Fred S., 1888, B. Ph., Montgomery, Ala., attorney-at-law.
 Bancroft, Gay, 1898, B. A., Columbus.
 Barcus, Miner, 1897, M. E. in E. E., Schenectady, N. Y., General Electric Co.
 Barlow, Helen M., 1898, B. Ph., Columbus.
 Barnaby, Charles L., 1898, C. E., Columbus.
 Barnaby, Josephine, 1896, B. Ph., Warren, teacher.
 Barrows, Harry Holbrooke, 1898, C. E., Lexington, Ky., engineer on Queen & Crescent Ry.
 Bartholomew, Clyde Stanley, 1896, C. E., Newark, civil engineer, B. & O. Ry.
 Basterdes, Ada Mabel, 1890, B. Ph., Plano, Ill., teacher in High School.
 Bates, Josephine M., 1881, B. Ph., Mrs. Florizel Smith, Columbus.
 Bates, Wesley C., 1882, LL. B., 35½ N. High street, Columbus, attorney.
 Baughman, George W., 1897, G. Ph., Leipsic.
 Beach, David Price, 1895, C. E., Pittsburg, Pa., in employ of Pennsylvania Railroad.
 Beach, Margaret Alice, 1891, B. Ph., (Mrs. Wilson Holman), Bayonne, N. J.
 Beardsley, Orsamus D., 1898, B. Ph., Garrettsville.
 Beattie, William Renick, 1894, B. Sc., 1897, M. Sc., (in Horticulture), Columbus agent for typewriters' supplies.
 Beck, Arthur Andrew, 1893, C. E., Columbus, county surveyor's office.
 Belden, Sanford Bonner, 1895, E. M., Chicago, Ill., with Chicago Electric Mining Engineering Co.
 Bell, Mary Edith, 1894, B. Ph., St. Paul, Minn., teacher in High School.
 Bennett, Henry C., 1890, B. A., 100 Washington street, Chicago, Ill., attorney-at-law.
 Bennett, Samuel E., 1890, D. V. M., Kansas City, Mo., Gov't Meat Inspector.
 Bently, William Preston, 1885, B. Agr. (B. A. 1890, M. A. 1893, Bethany College), 15 Miller Road, Shanghai, China, missionary.
 Bertsch, Joseph Franz, 1896, LL. B., Columbus.
 Bibbee, George E., 1897, LL. B. (A. B. Ohio Wesleyan University), Columbus.
 Biebel, Herman Matthews, 1896, M. E. in E. E., Chicago, Ill., electrician with Western Electric Co.
 Bissing, William, 1893, M. E. in E. E., Washington, D. C., patent office.
 Blackburn, Frank H., 1896, M. E. in E. E., Tres Piedras, N. M., Supt. Buckeye Mica Mining Co.
 Blaire, Edward Grey, 1895, G. Ph., Shawnee, pharmacist.
 Blakiston, Anna Houston, 1897, B. Ph., (Mrs. Powell) Pittsburgh, Pa.
 Blakiston, Mary, 1893, B. Ph., Columbus, teacher in South High School.
 Blinn, Ray S., 1893, B. S.
 *Bloom, Edwin M., 1893, B. Sc., died, 1894.
 Bloom, J. George, 1889, C. E., Cincinnati, assistant engineer, B. and O. S. W. R'y.
 Bloomfield, Lloyd Morris, 1891, B. Agr., Wooster.
 Bock, Harrison W., 1898, LL. B., Canton.
 Bodman, Mary E., 1898, B. Ph., Bement, Ill.
 Boesche, Felix John, 1896, G. Ph., New Bremen.
 Boesel, Frank Tilden, 1896, B. Ph., student, Harvard Law School.
 Bogue, Ernest Everett, 1894, B. Sc.-H. & F., 1896, M. Sc., Professor of Botany and Horticulture, Agricultural and Mechanical College, Norma, Okla.
 Bone, John H., 1893, B. Sc.; 1896, B. Sc. (Agr.), assistant in Agriculture, Agricultural and Mechanical College, Norma, Okla.
 Booth, Lucy Adelaide, 1892, M. A. (B. A., Ohio Wesleyan University), 1894, Ph. D., Columbus.
 Bope, George W., 1897, LL. B., Columbus.

- Bower, Jerome G., 1897, M. E., Waynesburg, Pa.
- Bownocker, John A., 1889, B. Sc., 1897, D. Sc., Columbus, assistant professor in geology, State University.
- Boyd, Emma, 1888, B. Ph., 38 W. Woodruff ave., Columbus, teacher in the North High School.
- Boyd, James G., 1897, D. V. M., Columbus.
- Boyd, James Ellsworth, 1891, B. Sc., Columbus, assistant professor of Physics, State University.
- Boyd, Martin L., 1897, LL. B., Columbus.
- Bradford, Ernst, 1892, G. Ph., S. Garfield ave., Columbus, chemist.
- Bradford, Joseph Nelson, 1883, M. E., 54 West Tenth avenue, Columbus, associate professor of drawing, State University.
- Brand, Harry Frank, 1896, B. Ph., 1897, LL. B., Worthington.
- Brandt, Ulysses Sherman, 1895, B. A., Canal Winchester, superintendent schools.
- Braun, Joseph G., 1897, G. Ph., Columbus.
- Brelsford, Harley, 1898, B. Ph., Christiansburg.
- Brewer, John Whitney, 1896, G. Ph., Columbus.
- Britton, John Carr, 1898, B. Sc. (Agr.), Columbus.
- Brier, Harvey E., 1890, D. V. M., Tippecanoe City, veterinary surgeon.
- Bronson, Herman S., 1897, LL. B. (B. L., Cornell University), Columbus, attorney.
- Brown, Frederick W., 1888, E. M., Bellefontaine, superintendent Buckeye Portland Cement Co.
- Brown, Newton H., 1893, M. E. in E. E., assistant in Physics, Ohio State University.
- Bruce, Charles A., 1895, B. A., Columbus, Paris, student.
- Brumley, David Joseph, 1895, C. E. Evansville, Ind., with L. & N. R'y.
- Bruning, Henry Dietrick, 1896, C. E. Pittsburg, Pa.—engineer on P., C. C. & St. L. R. R.
- Buckman, Arthur Leslie, 1897, M. E. in E. E., Dixon, Ill., assistant state telegraph inspector.
- Buckman, Ola, 1895, B. Sc., (M. D. Cleveland University of Medicine and Surgery), Norwalk.
- Bunnell, Larone A., 1898, G. Ph., Waynesville.
- Burkett, Charles William, 1895, B. Sc. (Agr.), 1898, M. Sc. (Agr.), Durham, N. H., associate professor of Agriculture, New Hampshire State College.
- Burkett, Dora Van Buren, 1897, B. Ph., Columbus.
- Burns, James Ferguson, 1891, C. E., Hopkinsville, Ky., assistant engineer L. & N. Ry.
- Burr, Harriett G., 1897, B. A. Worthington.
- Butler, James Marion, 1894, LL. B. (A. B., Ohio Wesleyan University), Carmel.
- Butterworth, William H., 1898, B. A., Columbus.
- Byers, Clara, 1894, B. Ph., (Mrs. Coles A. Raymond), Youngstown, O.

C

- Cahen, Alfred, 1894, LL. B., Allegheny, Pa.
- Calkins, George Herbert, 1895, M. E. in E. E., Columbus.
- Calkins, William Bartlett, 1898, G. Ph., Columbus.
- Callender, Sherman D. Ph. B. (Oberlin College), 1898, LL. B., 326-330, The Nasby, Toledo, attorney.
- Canfield, Charles H., 1897, D. V. M., Akron.
- Canfield, Leander Randall, 1896, B. Ph., Chardon.
- Capron, Marshall Fremont, 1888, M. E., Kenton, architect.
- Carr, Hugh Stanley, 1896, M. E., in E. E., Sandusky, Warren Electric Mfg. Co.
- Carr, James Gray, 1897, B. A. Coshocton.
- Carroll, Patrick Henry, 1894, E. M., Houtzdale, Pa.
- Carroll, William Hunt, 1894, LL. B., Wilmington.

- Carson, Samuel King, 1895, M. E. in E. E., Columbus, student, Ohio Medical University.
- Cathcart, Josephine M., 1888, B. Sc., 1131 Cedar avenue, Cleveland, accountant.
- Catlin, Homer Clark, 1896, C. E., Toledo, Toledo Bridge Co.
- Canaga, George Orlando, 1895, LL. B. (B. A., Scio College).
- Cartwright, Henry Gilroy, 1895, LL. B.
- Cellarius, Frederick Julius, 1888, C. E., Dayton, civil engineer.
- Chamberlain, Helena W., 1884, B. A., Mrs. Ellis Lovejoy, Union Furnace.
- Chalmers, Agnes Florida, 1895, B. Ph., Bay City, Mich., teacher in High School.
- Chappell, Walter Evans, 1898, M. E. in E. E., Brooklyn, N. Y., Ensign U. S. S. Vermont Navy Yard.
- Charters, William Filson, 1887, B. Ph., Sidney, tax inquisitor.
- Cherryholmes, W. K., 1881, B. Sc., M. D., Hamilton, physician.
- Ciley, Raymond, 1896, C. E., Cincinnati.
- Clay, Albert Arlington, 1893, LL. B. (B. A., Tri-State Normal College), Hicksville.
- Claypoole, Bessie Smith, 1895, B. Ph., Columbus, student.
- Claypoole, Charlotte Lake, 1892, B. Ph., Columbus, North High street.
- Clum, George V., 1893, B. A., Mendota, Ill., president of Mendota College.
- Cockins, Edith D., 1894, Columbus, Registrar, State University.
- Coddington, Edwin F., 1896, C. E., 1897, M. Sc., fellow in Astronomy, Lick Observatory, Mount Hamilton, California.
- Cole, George Nathan, 1891, M. E. in E. E., Chicago, Ill.
- Cole, Marietta C., 1897, B. Ph., Columbus.
- Collins, Curtis, 1895, M. E., in E. E., Boston, Mass., General Electric Co.
- Coney, William Hawks, 1894, B. Sc., Honolulu, S. I.
- Connell, Laura Jewell, 1896, B. Ph., Columbus, teacher of German.
- Connell, William A., 1886, E. M., Kansas City, Mo., teacher, Manual Training School.
- Converse, Edward Joseph, 1886, B. A., (B. D., Yale University), Columbus, Ass't pastor, First Congregational Church.
- Converse, Howard Pendleton, 1887, B. Sc., 166 Devonshire street, Boston, Mass. manager Boston office Cooper, Hewitt & Co., steel and iron manufactures.
- Conway, Hugh Lawrence, 1896, C. E., Springfield.
- Cope, Albert N., 1897, M. E. in E. E., Columbus, electrician with Columbus Street R. R.
- Corner, Florence, 1897, B. Ph., Columbus.
- Corns, Harry, 1897, B. A., Columbus, teacher in Central High School.
- Corwin, Edwin E., 1880, B. A., Columbus, attorney-at-law.
- Cotes, Albert E., 1897, B. Sc., Columbus Medical student, Ohio Medical University.
- Coursault, Jesse H., 1893, B. A., 1898, M. A., Columbus, teacher in Central High School.
- Covell, Vernon Royce, 1895, C. E., Pittsburg, Pa., county engineers office.
- Craig, Moses, 1899, B. Sc., (M. S., Cornell University, 1890), 1896, M. Sc. (H. & F.), Agricultural and Mechanical College, Corvallis, Oregon.
- Cratty, John Mason, 1897, B. Sc., Cincinnati, chemist.
- Crawford, Ira, Jr., 1893, LL. B. (B. S., Denison University), Dayton.
- Crawford, William Sterling, 1888, B. Ph.
- Cromley, Alva M., 1897, G. Ph., Toledo, pharmacist.
- Crooks, Charles Melville, 1892, B. A.
- Crowner, Delbert Alonzo, 1896, B. Sc., (Agr.), Ohio Experiment Station, Wooster.
- Cummins, Henry Rollins, 1891, G. Ph., Hunter street, Columbus.
- Cunningham, Arthur, 1880, B. A., 107 Lincoln street, Columbus, bookkeeper.
- Cunningham, Edward Walter, 1894, C. E., Chicago, Ill., U. S. engineer's office.
- Cunningham, George S., 1886, B. Ph., LL. B., Lancaster, attorney-at-law.
- Cunningham, John Ferguson, 1897, B. Sc. (H. and F.), Columbus, assistant in Horticulture, State University.

D

- Daily, Henry G., 1892, D. V. M., Wooster, veterinary surgeon.
 Damron, Carson W., 1897, M. E., Gallipolis.
 Daniels, David Edwin, 1893, LL. B. (B. Ph., Denison University), 1896, LL. M., Columbus.
 Davenport, Adrian E., 1897, B. A. Columbus.
 Davidson, David Millen, 1894, B. A., law student, Chicago, Ill.
 Davies, Jennie C., 1897, B. Ph., Columbus.
 Davies, John Lodwick 1894, LL. B., Minneapolis, Minn., attorney-at-law.
 Davis, Charles William, 1894, E. M., Colorado Springs, Col., teacher in High School.
 Davis, Oscar Allen, 1897, M. E. in E. E., Sistersville, W. Va., electrician, Carter Oil Co.
 Deahl, Walter Smith, 1896, C. E., Pittsburgh, Pa.
 Deardurff, Carl Mason, 1895, B. A.
 DeLamater, Clayton William, 1884, A. B., LL. B., Omaha, Neb., attorney-at-law.
 DeLoffre, Andre, 1896, M. E. in E. E., Schenectady, N. Y., General Electric Co.
 DeLoffre, Samuel Middleton, 1895, B. A.
 Dennis, Jerry, 1892, LL. B., 1893, LL. M., Columbus, attorney-at-law.
 Derby, Florence Harlow, 1896, B. Ph., Columbus, graduate student, State University.
 Detmers, Fredericka, 1887, B. Sc., 1891, M. Sc., 1215 Neil avenue, Columbus, teacher.
 Devol, Willsam Stowe, 1886, B. Agr., Riverside, Cal.
 Dice, Jesse Peck, 1898, LL. B., Akron.
 Diemer, Hugo, 1896, M. E. in E. E., Westinghouse E. & M. Co.
 Dietrich, Charles Henry, 1878, B. Sc., with American Book Co., general manager for Kentucky.
 Dietrich, George C., 1898, B. Ph., Piketon.
 Doan, Frank C., 1898, B. Ph., Boston, Mass., graduate student, Harvard University.
 Doney, Carl Gregg, 1891, B. Sc., 1893, LL. B., Delaware, pastor M. E. Church.
 Donham, Maurice, 1896, M. E., Cincinnati.
 Donham, William W., 1882, B. Sc.
 Dresbach, Melvin, 1897, B. Sc., Columbus, fellow in physiology, State University.
 Dun, George William, 1884, B. Sc., Columbus, business manager, "Columbus Citizen."
 Dun, John J., 1883, E. M., Fifteenth avenue, Columbus, consulting engineer.
 *Dun, Walter Angus, 1878, B. Sc., M. D., died November 7, 1887.
 Dungan, Irvine Laird, 1892, B. Ph., Cincinnati, Lane Theological Seminary.
 Dunlap, Thaddeus Cox, 1895, M. E., in E. E., Ensign, U. S. Navy, Battleship Oregon.
 Dunlap, William Renick, 1895, B. Sc., Kingston, farmer.
 Dunnick, Edward, 1897, C. E., Columbus, New Columbus Bdg. Co.
 Duvel, Joseph W. T., 1897, B. Sc., Wapakoneta.
 Dye, Clair Albert, 1891, G. Ph., Columbus, assistant professor of pharmacy, State University.

E

- Eagleson, Grace, 1897, B. Ph., Columbus.
 Early, Franklin E., 1893, D. V. M.
 Easterday, Charles Todd, 1891, G. Ph., Wellston, druggist.
 Edwards, Mary Winifreda, 1897, B. A., Columbus, student Normal School.
 Egbert, Knott C., 1890, B. Agr., Yainax, Oregon, Supt. Indian Boarding School.
 Eisenlohr, Berthold A., 1898, B. Ph., Cincinnati.
 Ellis, Charles, 1898, D. V. M., 3230, Locust street, St. Louis, Mo., veterinarian.
 Emery, Peyton Randolph, 1893, LL. B., London.
 Emery, Vernon Judson, 1887, B. A. (A. M., University of Nebraska), Cleveland, assistant professor of Latin, Western Reserve University.

- Erskine, John H. 1886, E. M., Lowellville, fire brick manufacturer.
 Estep, Frank Leslie, 1898, M. E. in E. E., Beloit, Wis., Asst. Supt. of Lighting Co.
 Evans, Ernest, 1892, B. Sc., Mingo Junction, chemist, Laughlin Junction Steel Co.
 Evans, Peter Platter, 1892, C. E., Boston, Mass., with King Bridge Co.
 Evens, William Lloyd, 1892, B. Sc., 1896, M. Sc., Colorado Springs, Col., teacher of chemistry in High School.
 Eysenbach, Ernest, 1896, E. M., Columbus, with Columbus Gas Co.

F

- Fairchild, Harmon Scott, 1894, LL. B., Springfield.
 Farber, Charles Harker, 1894, B. A., Columbus, with State Savings Association.
 Fassig, Oliver L., 1882, B. Sc., Baltimore, Md., Instructor in Climatology, Johns Hopkins University.
 *Fay, Frederick Willis, 1882, B. A., B. Arch., died August, 1892.
 Fay, Mona, 1897, B. Ph., (Mrs. Eugene Gee), Pittsburgh, Pa.
 Feicht, Russell Stimson, 1890, M. E., in E. E., Philadelphia, Pa., Philadelphia Traction Co.
 Feiel, Ida Louise, 1898, B. Ph., Columbus.
 Fenner, Jessie Albertus, A. B., (Wittenberg College) 1898, LL. B., Shiloh.
 Fergus, Guy Carlton, 1898, M. E. in E. E., Zanesville Electrical Contractor.
 Fergus, John Franklin, 1892, LL. B. Columbus, attorney-at-law.
 Finley, Harry Marshall, 1894, B. A. McConnelsville, principal of High School.
 Fischer, Julius H. R. Paul, 1891, B. Agr., D. V. M., professor of veterinary medicine, Manhattan, Kas.
 Fischer, Robert, 1895, G. Ph., 1896, M. Ph., 1898, B. Sc., Columbus, fellow in chemistry State University.
 Fischer, Walter, 1897, B. Sc., Columbus.
 Fish, Fred Alan, 1898, M. E. in E. E., Columbus, fellow in electrical engineering, State University.
 Fisher, Clara, 1886, B. A., Mrs. J. Porter Milligan, Columbus.
 Fisher, Georgietta, 1895, B. A.
 Fitzgibbon, James Robert, 1894, LL. B., Newark.
 Fitterer, John Conrad, 1898, B. Sc., Butler.
 Flickinger, George A., 1898, B. Sc., (Agr.) York.
 Floto, Julius, 1889, E. M.
 Flynn, Benjamin H. 1898, C. E., Columbus, with State Board of Health.
 Flynn, Harry Franklin, 1892, C. E., Washington, D. C., U. S. Geodetic and Coast Survey.
 Flynn, Maud, 1896, B. Sc., Columbus, student, Columbus Normal School.
 Flynn, Oscar Rodgers, 1896, B. Sc., teacher in High School, Columbus.
 Foley, William J., 1894, D. V. M., Lexington, Ky.
 Ford, Ruth L., 1898, B. A., Ashtabula, teacher in High School.
 Ford, Stanley Homer, 1898, B. Ph., Lieut. in U. S. Army.
 Forgy, Ralph Morris, 1896, B. Ph., El Paso, Texas.
 Foster, Dudley Hampton, 1895, B. Ph., LL. B., attorney-at-law, Corning.
 Foster, Frank McMillan, 1894, M. E. in E. E., Madison, Wis., Electric Supply Co.
 Foster, Israel Moore, 1898, LL. B., Athens.
 Foulk, Charles William, 1894, B. A., assistant in chemistry, State University.
 Fowler, Harry R., 1894, M. E. in E. E., Toledo, Electrical Contractor.
 Fox, Charles P., 1890, B. Agr., 1895, M. Agr., Columbus, fellow in botany, State University.
 Fox, Frederick Hugh, 1896, B. Ph., McConnelsville.
 Fox, John Herbert, 1897, M. E., Cleveland, Brown, Hoisting Machine Co.
 Francis, Edward, 1894, B. Sc., Cincinnati, interne, Cincinnati Hospital.

- Francis, Mark, 1887, D. V. M., College Station, Brazos Co., Tex., professor of veterinary medicine, Agricultural and Mechanical College.
- Fravel, George B., 1888, M. E., Indianapolis, Ind., assistant master mechanic, Pan Handle shops.
- Frayar, Lee Ambrose, 1896, M. E., Greenwich.
- Freeman, Stanton Sholes, 1898, E. M., Columbus.
- French, Thomas Ewing, 1895, M. E., Columbus, assistant in drawing, State University.
- Fritchle, Oliver Parker, 1896, B. Sc., Mt. Hope.
- Fulmer, Edward L., 1897, B. Sc., 1898, M. Sc., Columbus, graduate student, State University.
- Fullerton, Charles Haywood, 1898, B. Ph., Wheelersburg.

G

- Gains, Charles E., 1889, B. Ph., London, physician.
- Galbraith, John Howard, 1883, B. Ph., Oak street, Columbus, journalist.
- Gale, Cora C., 1893, B. Ph., Columbus.
- Gale, Franklin Henry, 1893, LL. M. (LL. B., University of Michigan), Columbus.
- Gallen, William Francis, 1897, M. E., Columbus.
- Game, Reed Haskell, 1896, B. Ph., student in College of Law, State University.
- Garber, Alberta D., 1889, B. Ph., A. M., Boston, Mass.
- Garber, John Murray, 1897, C. E., Columbus, New Columbus Bdg. Co.
- Garber, Levi L., 1898, B. A., Belleville.
- Garst, William Augustus, A. B., (Otterbein University and Harvard University), 1898, LL. B., Westerville.
- Gee, Eugene C., 1897, M. E. in E. E., Pittsburg, Pa.
- Gehrkins, Edward Frederick, 1894, M. E. in E. E., Schenectady, N. Y., with General Electric Co.
- Geissinger, James Allen, 1895, B. A., Cincinnati.
- Genheimer, Eli Thomas, 1896, B. Ph., Portsmouth, teacher in High School.
- Genheimer, William F., 1897, LL. B., Portsmouth, attorney.
- Gibbs, George C., 1893, B. A., Columbus, with Green, Joyce & Co.
- Given, James Byron, 1896, M. E. in E. E., 224, 22d St., Chicago, Ill., President, Given Supply Co.
- Givens, Newton Edgar, A. B., 1896, LL. B., Waverly.
- Glover, Sioux, 1882, B. Sc., Mrs. Horton, Errid, Pa.
- Goddard, Loring Hapgood, 1892, C. E., Sullivan, Ind., farmer.
- Goodell, Ralph Spencer, 1892, C. E., Columbus, draughtsman, New Columbus Bridge Co.
- Goodman, Joseph Clarence, 1896, LL. M., Columbus.
- Goodman, Sylvester Jacob, 1896, G. Ph., Columbus, student, Ohio Medical University.
- Gordon, Adelaide Cummins, 1896, B. Ph., Columbus.
- Graham, Emery Eugene, 1898, M. E. in E. E., Chicago, Ill., Western Electric Co.
- Grandle, Frank Albert, 1891, G. Ph.
- Grate, Charles Artemis, 1898, M. E., Yale.
- Graves, William L., 1893, B. A., 1897, M. A., assistant professor in Rhetoric, State University.
- Gray, Genevieve, 1898, B. Ph., Columbus.
- Gray, James Collam, 1892, LL. B., 1893, LL. M., Pittsburg, Pa., attorney P. R. R'y.
- Green, Charles C., 1885, B. Sc., M. D., Beaver City, Neb., physician.
- Green, Jerome Joseph, 1893, M. E. in E. E., South Bend, Ind., Notre Dame University, professor in charge of electrical department.

- Green, Robert Lee, 1892, G. Ph.
 Gregg, Frank B., 1889, B. Ph., M. D.
 Gregory, Hiram D., 1880, E. M., attorney-at-law, Grayson, Ky.
 Griffin, Mark H., 1897, M. E. in E. E., Xenia, Electrical Engineer Soldiers' and Sailors' Orphans Home.
 Griffin, Theodore L., 1889, B. Sc., M. Sc., Columbus, chemist.
 Griffith, David Mathias, 1896, LL. B., Kecksburg, Pa.
 Griffith, Wellington John, 1892, LL. B., Tiffin.
 Griffiths, Benjamin Lincoln, 1898 LL. B., Vaughnsville.
 Grimsley, George Perry, 1890, B. A., 1891, M. A., (Ph. D., Johns Hopkins University, 1894), Topeka, Kansas, professor natural history, Washburn College.
 Griswold, Lawrence William, 1892, B. A., New York City, London Assurance Co.
 Groff, Orsyla Ann, 1894, G. Ph., North High street, Columbus, pharmacist.
 Groff, Warren Noble, 1896, B. A., Tiffin, law student.
 Groves, John Wesley, 1898, C. E. Batavia.
 Guerin, Martha, 1896, B. Ph., Columbus.
 Gule, George Linville, 1896, LL. B., Columbus, attorney.
 Gule, Marie, 1897, B. A., Alexandria, Ind., teacher.
 Guittard, Virgil, 1894, B. Sc., New Bedford.
 Guitteau, William B., 1897, B. Ph., Columbus, law student, State University.
 Guss, Sherman Hamlin, 1892, B. A., Clarksburg, W. Va., principal of the colored schools.

H

- Haas, Frank, 1895, C. E., 1896, E. M., Sharon Pa., Chemist for Sharon Steel Co.
 Hagler, Howard, 1889, B. Sc., Washington C. H. farmer.
 Haigler, Charles Edmund, 1898, B. Sc., Jeffersonville.
 Hale, Frederick James, 1898, M. E. Columbus, fellow and laboratory assistant in mechanical engineering, State University.
 Hall, Harry R., 1889, E. M. Dunbar, Pa., assistant general manager, Dunbar Furnace Co.
 Halterman, Oscar Elmore, 1895, LL. B., B. S., (National Normal University.)
 Hamilton, Charles R. 1893, B. A., Zanesville, Dun's Commercial Agency.
 Hamilton, Frank Alexander, 1895, D. V. M., Dubois, Pa., veterinary surgeon.
 Hammond, Bessie B., 1897, B. Ph., Columbus.
 Hammond, Rose Lytle, 1896, B. Ph., Columbus, teacher.
 Hancock, David R., 1889, G. Ph., M. D.
 Haney, Thomas Carlyle, 1894, G. Ph., Columbus, pharmacist.
 Hannum, William Hamilton, 1887, B. A., Ratnagiri, India; American Presbyterian Mission in Western India.
 Harbage, Arnett, 1893, D. V. M., West Jefferson, farmer.
 Harlor, John David, 1895, B. A., Columbus, teacher in Central High School.
 Harris, Frank Laverne, 1894, LL. B. (Ph. B., Tri-state Normal University), Payne.
 Harris, Walter Conger, 1893, B. Sc., 68 W. Thirty-fifth street, New York, with Art Department of Herald.
 Harrison, Warner, 1892, LL. B., East Town street, Columbus, attorney and solicitor C., A. & C. Railway.
 Harrison, William Henry, 1885, C. E., Anaconda, Montana.
 Harrold, Ernst Ellwood, 1895, G. Ph., dispenser chemical store-room, State University.
 Harrop, Herbert Bailey, 1898, B. Sc., Columbus.
 Hartough, William H. Jr., 1898, B. Ph., Columbus, clerk in office of Supt. C., S. & H. Ry.
 Hartwell, Arthur, 1888, M. E., Pittsburg, Pa., agent, Westinghouse E. & M., Co.
 Hartwick, Louis M., 1897, M. E., Springfield, chief draughtsman for Foos Gas Engine Co.

- Harvey, Arlington Corylle, 1896, B. Ph., 1897, M. A., Columbus, student in Law College, State University.
- Harvey, Emory Wayland, 1896, B. Ph., Cleveland, teacher.
- Harvey, Florence Danford, 1898 B. Ph., Mt. Perry.
- Harvey, Sherman Lee, 1896, G. Ph., Harrisburg.
- Hassler, Robert Hanich, 1892, M. E., in E. E.
- Hastings, Edwin George, 1898 B. Sc., Madison, Wis., student University Wisconsin.
- Hayes, Seth, 1892, B. Sc., Fremont, principal of High School.
- Hayward, George E. 1893, C. E., New Philadelphia, engineer, C., L. E. & W. Ry.
- Hazelton, Bird, 1898, B. Ph., New Straitsville.
- Hazlett, Robert, Jr., 1887, C. E., Wheeling W. Va., consulting engineer.
- Heacock, William Preston, 1898, LL. B., Cardington.
- Heath, Arthur T., 1887, G. Ph., Harbor, analytical chemist, consulting engineer and contractor.
- Hebble, Charles Roy, 1896, M. E., in E. E., Cincinnati.
- Hedges, Harry, 1888, B. A.
- Heller, Albert Henry, 1890, C. E., Youngstown, Youngstown Bridge Co.
- Henderson, Adelbert Andrew, 1898, C. E., Columbus, city engineer corps.
- Henretta, Charles Michael, 1896, E. M.
- Herbert, Charles, T., 1897, LL. B., Columbus, attorney.
- Herms, Edith S., 1898 B. Ph., Portsmouth.
- Herrick, Louise, 1893, B. A., (Mrs. Harry Abbott), Columbus.
- Hess, Florence Louise, 1895, B. Ph., Columbus.
- Hewitt, Strafford Reaves, 1898, M. E., in E. E., Columbus Mine Supply Co.
- Hiatt, William Arthur, 1895, B. Ph., New York City, teacher in Stevens School, Hoboken, N. J.
- Higbee, Charles E., 1883, B. Sc.
- High, Odessa, 1896, B. A., West Jefferson, teacher.
- Hill, Frank E., 1886, B. Sc., M. D., Muncie, Ind.
- Hill, I. T. Reynolds, 1896, B. Sc., (H. & F.), Berlin Heights.
- Hine, James, S., 1893, B. Sc., Columbus, assistant professor of Entomology, State University.
- Hine, Lucius A., 1888, E. M., 140, 50th St., Chicago, Ill., manufacturer of light casting etc.
- Hipple, John Merton, 1898, M. E., in E. E., Turtle Creek, Pa., Westinghouse E. & M. Co.
- Hirsch, Gustav, 1897, M. E., in E. E., Columbus, Lieut., U. S. Signal Corps.
- Hoel, Sarah Elizabeth, 1893, B. Sc. (Mrs. W. M. Mills), North Tonawanda, N. Y.
- Hoffman, Arthur Sullivant, 1897, B. A., Coshocton, teacher in High School.
- Homan, Frank, 1895, C. E., New Straitsville, Chf. Engr., C. H. H. C. & I. Co.
- Hood, Sherman, 1894, B. Sc., Meander, gardner.
- Hopkins, Charles Delnow, 1893, LL. B., (B. A., Ohio Wesleyan University), Athens.
- Horton, Henry Pomeroy, 1889, B. Ph.
- Houseman, Ruth U., 1897, B. Ph., Painesville, teacher in High School.
- Houston, Anna Christine, 1892, B. Ph., 1895, M. A., Marysville.
- Hovey, Clark Samuel B. A., (Buchtell College) 1898, LL. B., Akron.
- Howald, Ferdinand, 1878, B. Sc., Rush Run. W. Va., manager of mining operations.
- Howard, A. B., 1883, B. Ph., Jackson, Miss., clergyman.
- Howard, Curtis C., 1878, B. Sc., M. Sc., 115 Jefferson avenue, Columbus, professor of chemistry in Starling Medical College.
- Howard, Fauny Fern, 1896, B. A., Columbus.
- Howard, Edward Davenport, 1894, LL. B., 1896, LL. M., Columbus, attorney.

- Howard, John Wilot, 1895, B. Sc., Columbus, assistant secretary, Board of Trade.
 Howells, Thomas J. 1897, E. M., Martins Ferry.
 Hubbard, Ralph Newton, 1891, B. Sc., Columbus, Columbus Machine Co.
 Hughes, Raymond Mollyneaux, A. B. (Miami University), 1897 M. Sc., Miami University, professor of chemistry.
 Huddleson, Don Carlos, 1897, G. Ph., Columbus, assistant in Gymnasium, State University.
 Hull, Mary Louise, 1894, B. A., (Mrs. C. H. Farber), Columbus.
 Humphrey, J. Scott, 1879, B. Sc., Findlay, civil engineer.
 Humphreys, Leona, 1895 B. A., Plain City, teacher in High School.
 Hunt, William Franklin, 1887, M. E., attorney-at law, New York Life Building, St. Paul, Minn.
 Huston, Charles H., 1897, LL. B., (B. S. Tri-State College, Ind.) Mansfield.
 Hyde, Wilby Grimes, 1887, B. A. (LL. B., Cincinnati), Chillicothe, attorney-at-law.
 Hyle, Charles A., 1896, M. E., in E. E., Columbus, Weather Bureau.

I

- Ingram, Imogene, 1897 B. Ph., Columbus.
 Innis, Lyman H. 1893, B. A., 1895, LL. B., Columbus, attorney.
 Ireland, Guy Llewellyn, 1895, M. E., Cincinnati.
 Irvin, Chadwick H. 1897, M. E., Columbus.

J

- Jackson, Frank Pierce, 1892, LL. B., 1893, LL. M., Columbus, attorney.
 James, Florence May, 1896, B. A., (Mrs. Oscar R. Flynn) Columbus.
 Jeffrey, Maud Dorothy, 1895, B. Ph., assistant in library, State University.
 Jenkins, William B., 1893, C. E., Wilmington, Columbus and Athens Ry.
 Jenkins, Willis H., 1894 C. E., New York City, engineer.
 Jennings, Levi E., 1897, M. E. in E. E., Eaton.
 Johnson, Charles W., 1896, M. E. in E. E., Cincinnati, Designing Engr., Bullock Electric Co.
 Johnson, George Edward, 1892, C. E., N. & W. Ry., Kenova, W. Va.
 Johnson, Herbert Lincoln, R. 1892, M. E. in E. E., Cincinnati, Sec'y and Treas. Stewart Electric Co.
 *Jones, A. A., 1886, C. E., died May, 1894.
 Jones, Arthur James, 1898, M. E. in E. E., Homestead, Pa., Carnegie Steel Works.
 Jones, Aaron Wesley, 1891, B. Sc., Columbus, Gardner Insurance Agency.
 Jones, Alexander Houston, 1895, M. E. in E. E., St. Louis, Mo., with B. J. Percival, Engineer.
 Jones, Benner, 1897, LL. B., Jackson.
 Jones, Daniel D., 1893, G. Ph., Gallipolis, pharmacist, Epileptic Hospital.
 Jones, Jesse Lee, 1890, B. A., Philadelphia, Pa., chemist William Cramp & Sons, ship-builders.
 Jones, Paul, 1880, B. A., Columbus, attorney-at-law.
 Jones, Pearl N., 1892, M. E. in E. E., Pittsburg, Pa., Westinghouse E. & M. Co.
 Jones, Smiley, 1894, E. M., Downieville, Cal., electrician Gold Bluff mine.
 Jones, William Francis, 1896, D. V. M., Cincinnati, Miami Medical College.
 Judd, Horace, 1897, M. E., Columbus, fellow in Mechanical Engineering, State University.
 Judkins, Clyde H., 1897, LL. B. (A. B. Scio College), Flushing.
 Junk, Harry Prior, 1895, LL. B., Columbus, attorney-at-law.

K

- Keagle, Anna Brown, 1895, B. Ph., Columbus, teacher North High School.
 Keffer, Frederick, 1892, M. E., Anaconda, B. C., Supt. Boundary Creek Mining Co.

- Keifer, William White, 1886, B. A. (LL. B., Cincinnati), Springfield, attorney-at-law.
- Keiser, Romeo Orpheus, 1892, B. Sc., 1896, G. Ph., Columbus, assistant in chemistry, Ohio Medical University.
- Kellerman, Ivy, 1898, B. A., student, Cornell University.
- Kellicott, William E., 1898, B. Ph., Marysville, teacher in High School.
- Kellison, Edward Lafayette, 1897, B. Ph., Columbus, student in College of Law, State University.
- Kemmler, Edward A., 1888, C. E., 895 S. High street, Columbus, assistant city engineer.
- Kerr, Samuel Thompson, 1894, M. E. in E. E., Martin's Ferry, superintendent Electric Light Plant.
- Kershaw, Francis Stewart, 1891, B. Ph., Boston, Mass.
- Kershaw, Samuel Charles, 1892, B. Ph., Columbus, bookkeeper Columbus Bolt Works.
- Kester, Fred. Edward, 1895, M. E. in E. E., Ithaca, N. Y., scholarship Cornell University.
- Kiesewetter, Louis Frank, 1891, C. E., (A. B. Harvard, '92, and A. M., '93), Columbus, assistant cashier Ohio National Bank.
- Kiler, Abdel William, 1896, G. Ph., druggist, Columbus.
- Kirby, Harriet R., 1898, B. A., Columbus, teacher in North High School.
- Kirker, Harry L., 1889, B. Sc., Centreville, Idaho, electrician.
- Kiser, Katherine Daniel, 1895, B. A., Chicago, principal High School.
- Kline, Charles H., 1897, M. E. in E. E., Dayton.
- Knauss, William Henry, 1895, B. Sc., student Starling Medical College.
- Knecht, Arthur Edward, 1898, M. E., Cincinnati.
- Knight, Ruby Ray, 1895, B. Sc., Middleport.
- Knopf, Eva S., 1895, B. Ph., Columbus, teacher in North High School.
- Knopf, George W., 1883, B. Sc., Pittsburg, Pa., bridge builder.
- Kohr, Donald Alexis, 1898, B. Ph., Westerville.
- Krauss, Bertha Katherine, 1892, Ottawa.
- Krieger, Charles Henry, 1887, G. Ph., Columbus, superintendent the Kauffman-Lattimer Co.
- Krumm, Charles S. M., 1896, B. Ph., 1898, LL. B., Columbus, attorney.
- Krumm, Herbert Zettler, 1898, B. Ph., Columbus.
- Krumm, Lillian Louise, 1895, B. Ph., (Mrs. Harry Rush Wilson), Columbus.
- Krumm, Louis Ralph, 1898, M. E. in E. E., Columbus.
- Kuhn, Vallie Howard, 1896, M. E. in E. E., Etna.
- Kuhn, Harry Waldo, 1897, B. Sc., Columbus, fellow in mathematics, State University.

L

- Lamme, Benjamin G., 1888, M. E., Pittsburg, Pa., Engineer Westinghouse E. & M. Co.
- Lamme, Bertha A., 1893, M. E., in E. E., Pittsburg, Pa., Westinghouse E. & M. Co.
- Landacre, Francis Leroy, 1895, B. A., assistant in zoology and entomology, State University.
- Landacre, Walter Alexander, 1891, G. Ph., Columbus, student State University.
- Landis, Walter Victor Titus, 1895, B. Ph., Dayton.
- Lane, Quinton R., 1898, B. Ph., Canal Winchester.
- Large, Joseph H., 1890, C. E., Pittsburg, Pa., assistant inspector of bridges, Pennsylvania Southwest system.
- Laughlin, Hugh Clarence, 1890, B. A., (A. M. 1895, University of Nebraska), 1712 Bathgate avenue, New York, teacher in High School for Boys and Girls.
- Lavery, William F., 1890, D. V. M., veterinary surgeon, State University.
- Lawrence, Arthur K., 1897, G. Ph., Columbus.
- Layton, Roy Everett, 1895, B. A., 1897, LL. B., Wapakoneta, attorney.

- Lee, Edwin S., 1893, G. Ph., Columbus, druggist.
 Lee, Robert M., 1897, M. E., Columbus.
 Leffler, Edward Victor, 1896, G. Ph., Leipsic.
 Lemert, Helen Ora, 1894, B. A., Columbus, teacher High School.
 Lentz, Alice B., 1897, B. Ph., Lloydsville.
 Lentz, Theresa, 1893, B. Ph., Bellaire, teacher in High School.
 Leonard, James Lincoln, 1893, LL. B., (B. S., Ohio Normal University), Welcome.
 Levering, Orpheus D., 1893, M. E., Winchester, Mass., The McKay Metallic Fastening Association.
 Lewis, Charles Montgomery, 1881, B. A., Columbus, with Columbus Evening Dispatch.
 Lewis, Thomas K., 1894, B. Sc., Columbus, assistant in drawing, State University.
 Lincoln, Paul Martyn, 1892, M. E., in E. E., Niagara, N. Y., Superintendent of power house, The Cataract Construction Co.
 Lindo, William C., 1896, C. E., Cleveland, O., "Nickle Plate" R. R., engineer.
 Linson, Irvin, 1882, B. A.
 Lisle, Mabel, 1897, B. Ph., Columbus.
 Logan, Lavallette Lasea, 1896, E. M., Scranton, Pa., professor National Correspondence School.
 Logsdon, Clement Jay, 1898, G. Ph., Columbus.
 Loomis, John Cooper, 1898, LL. B., Tiffin.
 Lott, Charles Milford, 1895, M. E. in E. E.
 Loveberry, Clarence, 1896, D. V. M., Minneapolis, Minn., government meat inspector.
 Lovejoy, Ellis, 1885, E. M., Union Furnace, chemist and superintendent Columbus Brick and Terra Cotta Co.
 Lovejoy, Jesse R., 1884, B. Sc., Schenectady, N. Y., with General Electric Light Co.
 Luce, George Ernest, 1897, LL. B., (A. B., Ohio Wesleyan University), Columbus.
 Luse, Clara E., 1897, B. Ph., (Mrs. Herbert T. Scott), Alexandria.
 Lusk, William Vinton, 1893, D. V. M., Ft. Wingate, New Mexico, veterinary surgeon, Ind. cavalry.
 Lydenberg, Walter B., 1898, B. A., Dayton.
 Lynas, Caroline, 1898, B. A., Columbus.
 Lynas, Charles E., 1898, B. A., Columbus.

M

- MacGuire, Charles White, 1895, G. Ph., Toledo, student Toledo Medical College.
 Mackey, Ure LaVerne, 1893, M. E. in E. E., (B. A., Wooster University), Allegheny, Pa., student in United Presbyterian Theological Seminary.
 Magly, Robert A., 1897, G. Ph., Columbus.
 Magruder, Leonard Anthony, 1895, B. Ph., 1896, LL. M.
 Maier, John Valentine, 1895, LL. B., (B. S., Northern Indiana Normal University).
 Malone, William Ruskin, 1885, B. A., Toledo, with New York Life Insurance Co.
 Manecke, Gilbert, 1897, LL. B., Fostoria.
 Manley, Rush Emmett, 1894, M. E. in E. E.
 Marple, Charles Allen, 1885, B. Sc., Louisville, Ky., teacher of science, male High School.
 Marquard, Frank Fred, B. L., 1896, C. E., Dayton.
 Marshall, George Sidney, 1894, B. Ph., 1897, LL. B., Columbus, attorney.
 Martell, Leonard Roland, 1898, B. A., Columbus.
 Martin, Edwin Dunlevy, 1891, B. Ph., Lee Centre, Ill., teacher.
 Martin, George, 1897, M. E. in E. E., Norwalk, Central Union Telegraph Co.
 Martin, Percy, 1892, M. E. in E. E. with Ludw. Loewe & Co., Martinikenfelde, Kaiserin Augusta Allee, Berlin, N. W., Germany.

- Marvin, Charles Frederick, 1883, M. E. Washington, D. C., U. S. Weather Bureau.
- Mason, George F., 1890, G. Ph., Minneapolis, Minn., pharmacist.
- Masters, George Albert, 1886, C. E., Toledo.
- Mathers, John Harrison, 1895, B. Ph., Conover.
- Mathias, Frederick W., 1893, B. Sc., Toledo, teacher High School.
- Matson, George H., 1882, G. Ph., 93 Lexington ave., Columbus, professor of pharmacy, Ohio Medical University.
- Matson, William Edgar, 1896, M. E. in E. E., Lynn, Mass., with General Electric Co.
- Mauer, George Clifford, 1892, D. V. M., Oak Harbor, veterinarian.
- Mays, James Wesley, 1897, B. Ph., Columbus, student in College of Law, State University.
- McAllen, William Johnson, 1894, C. E., Mt. Vernon, O., engineer.
- McCarter, Edward Bancroft, 1892, B. A., 1894, LL. B., Columbus, attorney.
- McCarter, Flora, 1897, B. A., Columbus.
- McCarter, Robert Dale, Jr., 1895, M. E. in E. E., Schenectady, N. Y., with Gen. Electric Co.
- McClelland, Chalmer Kirk, 1898 B. Sc. (Agr.), Andover.
- McCormick, J. H., 1880, M. E., Dayton, National Cash Register Co.
- McCormick, William Francis, 1896, M. E., Columbus.
- McCulloch, George Elmer, 1891, B. Sc.
- McDowell, John Andrew, 1882, B. Sc., 949 Neil avenue, Columbus, secretary-treasurer of the Pleukharp Barrel Machine Co.
- McFadden, John Franklin, 1878, B. A., Columbus, attorney-at-law.
- McGregor, James Howard, 1894, B. Sc., New York, assistant in zoology, Columbia University.
- McGrew, John Alexander, 1895, C. E., Cleveland, engineer, with Pennsylvania Railroad Co.
- McGuffey, Francis Hoyt, 1894, M. E. in E. E., McGuffey.
- McIntire, Alfred Heber, 1888, M. E. in E. E., Columbus, Fellow in Industrial Arts.
- McLaughlin, Annis, 1897, B. Ph., Columbus.
- McLaughlin, James Audley, 1895, LL. B., (B. A., Monmouth College).
- *McMackin, Amasa Brown, 1879, B. Sc., died May 22, 1891.
- McNary, George Bull, Jr., 1896, M. E. in E. E., Toledo, with Bissel & Co.
- McPherson, William, 1887, B. Sc., 1891, M. Sc., 1895, D. Sc., Columbus, State University, professor of chemistry.
- Mead, Clinton V., 1884, B. Ph., Denver, Col., attorney-at-law.
- Mead, Rollo Nooman, 1895, D. V. M., Grand Rapids.
- Mebs, George H., 1897, G. Ph., Columbus.
- Meek, Charles Wesley, 1894, LL. B., Toledo.
- Meek, Edward Duncan, 1896, B. A., Steubenville, assistant principal High School.
- Meek, William W., 1889, B. Ph., 121 Fifteenth avenue, Columbus, J. W. Meek & Co.
- Mendenhall, Maurice H., 1893, D. V. M., West Elkton.
- Menough, Arthur George, 1894, E. M., Wellsville.
- Mercer, Frank Emmet, 1896, M. E. in E. E., Wauseon.
- Merrill, Alice Louise, 1893, B. A., 6565 Yale avenue, Chicago, Ill., Station O, teacher.
- Merrill, Charles Wesley, A. B. (Denison University), 1898, LL. B., 326-330 The Nasby, Toledo, attorney.
- Mershon, Ralph D., 1890, M. E., Cripple Creek, Col., engineer, Power Co.
- Mesloh, Charles, W., 1889, B. A., 1895, M. A., assistant professor of German, State University.
- *Mettters, Allen, 1896, B. A., died January 22, 1898.
- Metzger, Edward H., 1897, G. Ph., Circleville.
- Mickey, Blanche D., 1898, B. Ph., Columbus.
- Middleswart, Clarence Coulter, A. B. (Marietta College), 1898, LL. B., Constitution.
- Middleton, Ambrose, 1895, G. Ph., Lancaster.

- Miller, Carl James, 1898, B. Sc. (Agr.), Franklin.
- Miller, Charles C., 1883, B. A., Lima, Superintendent Schools.
- Miller, Daniel Elmer, 1890, G. Ph., Dayton, druggist.
- Miller, Frank Case, 1893, C. E., Columbus, assistant engineer C. S. & H., Short Line Division.
- Miller, Harry Franklin, 1889, M. E., McKeesport, Pa., Constructing Engineer, National Tube Works.
- Miller, Henry P., 1897, D. V. M., Sunbury.
- Miller, Walter McNab, B. Sc., 1885, Reno, Nev., Professor of Anatomy and Physiology, State University.
- *Milligan, James Porter, 1886, B. A., died, February, 1899.
- Mills, William C., 1898, B. Sc. (H. & F.), Columbus, curator archæological collection, State University.
- Milne, Alexander, B. D. (Yale University), 1898, M. A., Duluth, Minn., pastor Pilgrim Congregational Church.
- Mix, Edward W., 1888, B. Sc., Paris, France, electrical engineering, representing the General Electric Co.
- Mix, Melvin Noble, 1895, B. Ph., New York, The World, journalist.
- Mock, George Herbert, 1891, B. Sc., Ohio State Savings Bank, Columbus.
- Montgomery, Howard, 1896, B. Ph.
- Moodie, Alice Haynes, 1890, B. A., (Mrs. Arthur Hartwell), Pittsburg, Pa.
- Mooney, Daniel Francis, 1894, LL. B., St. Mary's.
- Moore, Henry Curtis, 1897, B. Sc., Washington, C. H.
- Moore, Virgil Owen, 1895, B. Sc., student Sterling Medical College.
- Morhart, Katherine Elizabeth, 1893, B. Ph., Pomeroy.
- Morrey, Annie Eliza, 1896, B. A., Chester Hill.
- Morrey, Charles B., 1890, B. A., 1896, M. D., student, Paris, France.
- Morrey, William T., 1888, B. A., Hoboken, N. J., teacher in Stevens School.
- Morris, Clyde, T., 1898, C. E., Columbus, New Columbus, Bdg. Co.
- Morrison, M. Frank, 1879, B. A., Mrs. S. H. Short, E. 9th avenue, Cleveland.
- Morrison, Robt. O., 1893, C. E., Cincinnati, engineer on Little Miami R. R.
- Morton, George L., 1884, M. E., (LL. B., Nat'l Law School), chief examiner, patent office, Washington, D. C.
- Moses, Martha Allston, 1891, B. Ph., 1111 Hinman avenue, Evanston, Ill., book-keeper.
- Moss, Blanche, 1898, B. A., Columbus.
- Moss, William, 1898, G. Ph., Buffalo.
- Moyer, Henry E., 1893, B. Sc., Youngstown, chemist, Youngstown Steel Co.
- Mull, Bert LaForrest, 1898, LL. B., Columbus.
- Mullay, Annie, 1887, B. Ph., Chicago, teacher.
- Mundhenk, Fred., 1896, B. Ph., Columbus, life insurance agent.
- Munn, Mortimer Adam, 1894, C. E., Mansfield, engineer.
- Munson, Theodore, 1898, B. Sc., Zanesville.
- Murray, Claude R., 1895, B. A., Middleport, Principal of High School.
- Murray, Frank Erskine, 1892, D. V. M., Greenfield, veterinary surgeon.
- Myers, Joseph Simmons, 1887, B. A., Pittsburg, Pa., editor Pittsburg Post.
- Myers, Ord, 1895, M. E. in E. E., Philadelphia, Pa., superintendent street railroad.
- Myers, Roy V., 1893, C. E., Dayton, Tenn., mining eng.
- Myers, Uriah H., 1887, E. M., Allegheny, Pa., chemist, Marshall Kennedy Milling Company.

N

- Nagel, William G., 1895, M. E. in E. E., Toledo.
- Needles, Mana R., 1890, B. Ph., (Mrs. Kilpatrick), Owosso, Mich.
- Nettleton, Arthur Warren, 1898, B. Sc. (Agr.), Medina.

- Newton, Henry S., 1889, B. Sc., mechanical and electrical engineer, Syracuse, N. Y.
 Newton, Samuel Donald, 1895, C. E., engineer on Southern R. R.
 Niewvahner, John Henry, 1891, B. A., Jackson, assistant cashier, First National Bank.
 Noble, W. F., 1879, B. A., Tiffin, attorney-at-law.
 Nutt, Arthur Chase, 1897, B. Ph., scholarship in philosophy, Cornell University.

O

- Obetz, Francis Henry, 1896, G. Ph., Columbus.
 O'Brine, David, 1881, B. Sc., M. Sc., E. M., D. Sc., M. D., Urbana, physician.
 Odebrecht, August, 1895, G. Ph., Columbus, with H. Braun & Sons.
 O'Kane, Sarah Eliza, 1891, B. Ph., (Mrs. F. M. Raymond), 215 W. Tenth avenue, Columbus.
 O'Kane, Walter Collins, 1897, B. A., Columbus, "Columbus Evening Dispatch."
 Orton, Clara Gregory, 1897, B. Ph., Columbus.
 Orton, Edward Jr., 1894, E. M., Columbus, director of the department of Clay-working and Ceramics, State University.
 Osborn, Samuel Galloway, 1897, LL. B., Columbus, attorney.
 Osborn, Raymond Carroll, 1898, B. Sc., Columbus.
 Ozias, Albert N., 1889, M. Sc., Racine, Wis., principal High School.

P

- Page, William Herbert, 1892, LL. B., 1894, LL. M. (B. A., Yale), Columbus, professor of elementary law, State University.
 Palmer, Walter K., 1893, M. E., State University Lawrence, Kansas.
 Parker, John Bernard, 1893, B. A., Columbus, fellow in Rhetoric, State University.
 Patch, Homer Austin, 1896, C. E., Youngstown, Youngstown Bdg. Co.
 Patchell, Owen P., 1889, B. Ph., Ardmore, Ind., attorney-at-law.
 Patchin, Rufus Harry, 1898, LL. B., Chardon, attorney-at-law.
 Payne, Halbert Edwin, 1887, M. E., 256 Broadway, New York City, American Type-writer Co.
 Peal, Allen Saunders, 1895, B. A., 3222 State street, Chicago, Ill.
 Pearce, George Downer, 1892, G. Ph., Goshen, Ind., pharmacist.
 Pearl, Allen Sexton, 1894, M. E. in E. E., Chicago, Ill., Central Electric Company.
 Pease, Edward Livingstone, 1895, law student, State University.
 Pedlow, Edward Benjamin, 1893, C. E., New Straitsville, superintendent, Columbus and Hocking Coal and Iron Co.
 Pierce, John Mattinson, 1895, M. E. in E. E., South Charleston.
 Pence, David Arrel, 1894, M. E., Lowellville.
 Perkins, Earl Harley, 1893, LL. B., Wellington.
 Peters, William Lincoln, 1885, M. E., Riverside, Cal., manufacturer.
 Pfarr, Philip Lewis, 1896, B. Sc., (Agr.) Dennison, Iowa.
 Phelps, Cyrus Alba, 1892, B. Sc., Sombereto, Jacataccas, Mexico, with Sombereto Mining and Milling Co.
 Pilcher, Hastings Moore, 1895, M. E. in E. E.
 Plantz, Wyatt Garfield, 1894, B. A., Pomeroy.
 Pleukharp, Chas. V., 1885, M. E.
 Plimmer, Gertrude Alice, 1896, B. Ph., Columbus.
 Polk, Walter, 1895, C. E., Indianapolis, Ind., Assistant general foreman, Telephone Co.
 Pomerene, Frank Etherington, 1891, B. Ph., 1895, LL. B., Coshocton, attorney-at-law.
 Pool, Harwood Redington, 1881, B. Ph., LL. B. 62 Cedar street, New York City.
 Porter, Mary Baxter, 1897, B. Ph., Columbus.

- Postle, Herman R., 1894, C. E., Columbus, teacher.
 Postle, Kenneth F., 1894, B. A.
 Powell, Chas. S., 1893, M. E. in E. E., Cleveland, agent Westinghouse E. and M. Co.
 Powell, Edward Thompson, 1896, LL. B., Columbus, attorney.
 Powell, Norman Clemson, 1895, D. V. M., Damascus.
 Prall, Anna Dickson, 1898, B. A., Columbus.
 Price, Homer Charles, 1897, B. Sc., (Agr.) Newark, farmer.
 Priest, Frederick, 1895, D. V. M., Newark, veterinary surgeon.
 Pryor, Charles Foster, 1898, LL. B., Barnesville.
 Pugh, Lawrence Randolph Whetzel, 1893, B. Ph., 1895, LL. B., Columbus, attorney-at-law.
 Pumphrey, John Homer, 1898, B. Sc., Clayton.
 Putnam, Abbey Slocum, 1897, B. Ph., Fisher, Ill.

R

- Radcliff, Charles Anson, 1895, B. Ph., attorney, Jackson.
 Randall, Emilius Oviatt, 1892, LL. M., (B. Ph., Cornell University), Columbus, attorney-at-law, professor in Law School, State University.
 Randolph, Edward S., 1897, LL. B., (A. B., Ohio Wesleyan University), Somerset.
 Rane, Frank William, 1891, B. Agr. (1892, M. Sc., Cornell), Durham, N. H., professor of Agriculture and Horticulture, New Hampshire College.
 Rarick, Murray M., 1896, B. Sc., (Agr.) Columbus, Student Starling Medical College.
 Raser, Samuel Eugene, 1898, B. Sc., Columbus, fellow in Mathematics, State University.
 Ray, Frank A., 1887, E. M., Columbus, associate professor of mine engineering, State University.
 Ray, William M., 1893, C. E., Room 825, Hickox Bld., Cleveland. C. L. & W. R. R.
 Raymond, Coles Abel, 1894, C. E., Youngstown, Youngstown Bdg. Co.
 Raymond, Frank, M. 1888, B. A., Columbus, attorney-at-law.
 Redick, Mary Glisson, 1898, B. Ph., Findlay.
 Reed, Robert Browning, 1896, M. E. in E. E., Zanesville, Electrical Contractor.
 Reed, William Allen, 1897, E. M., Central City, Colo. assaying officers, Alsdorf & Paul.
 Reese, William Daniel, 1891, B. A.
 Reese, William Henry, 1896, G. Ph., Glen Roy.
 Reeves, Archibald C., 1887, C. E., 153 Superior avenue, Dayton, civil engineer.
 Resler, Edwin D., (B. A., Otterbein) 1897, M. A. Westerville.
 Rice, Herbert A., 1897, C. E., Columbus, with Yost & Packard, Arch.
 Rice, Mabel Elise, 1898, B. A., Columbus, student.
 Richardson, Hamilton Hutchinson, 1892, B. Agr., Brooklyn, gardener.
 Richey, Luzerne A., 1897, B. Ph., Denver, Col., attorney.
 Rickey, Alla B., 1889, B. Ph., (Mrs. Geo. H. Cless,) Broad street, Columbus.
 Riddle, Howard Sterling, 1897, M. E. in E. E., Columbus, Jeffréy Mfg. Co.
 Riddle, Lumina C., 1897, B. Sc., 1898, M. Sc., Columbus.
 Riggs, Ernest Jacob, 1895, B. Sc., (agr.) M. Sc., (H. & F.) Angola.
 Rightmire, George Washington, 1895, B. Ph., 1898, M. A., Columbus, teacher in High School and fellow and assistant in American History, State University.
 Ritchey, Joseph C., 1890, B. Sc., Mingo Junction, with Junction Iron and Steel Co.
 Russell, Ralston, 1896, B. Ph., Pomeroy.
 Roberts, Cyrus Swan, 1898, E. M., Columbus.
 Robinson, Eckla Mazola, 1892, B. Sc., (Mrs. George Rowe.)
 Robinson, Erdis Geroska, 1893, C. E., Mexico, D. F. Mexico, Engineering Department of Mexican Central Railway.
 Robinson, Zella Vina, 1898, B. Ph., Columbus.

Rogers, Andrews, 1896, B. Ph., New York City, student, College of Physicians and Surgeons.

Rogers, James Bertrand, 1896, E. M., Youngstown.

Root, Willis J., 1885, E. M., Columbus, Chemist, King, Gilbert and Warren Steel Co.

Rowlee, Henry A., 1897, M. E., Columbus, government inspector of gun carriages.

Ruhlen, Carl Marble, 1898, M. E., 16 St. James ave., Boston, Mass.

Ruhlen, Frank, 1896, B. Sc., (Agr.) Columbus, Assistant in Agriculture, State University.

Rule, Ralph R., 1897, LL. B. (B. S. Tri-State College, Ind.) Greenspring.

Ruppersburg, Emma Anna, 1891, B. Sc., 1896, M. Sc., Columbus, teacher in High School.

S

Sabine, Annie Ware, 1884, B. A., A. M. (Mrs. W. H. Seibert), Columbus.

Sabine, Wallace Clement, 1886, B. A. (M. A., Harvard), 53 Trowbridge street, Cambridge, Mass., assistant professor in physics, Harvard University.

Safford, Robert Edwin, 1894, B. Sc., Columbus, with Columbus Savings Association.

Sandoe, Lydora Olivia, 1893, LL. B., (Mrs. Bachman), 1425, Bryden Road, Columbus.

Sater, Lowry Francis, 1895, B. Ph., 1897, LL. B., Columbus, attorney.

Schaub, Edward Louis Tascher, 1885, M. E., Dennison, Box 625, with P., C. & St. L. R. R.

Schaup, Charles E., 1897, E. M., Syracuse, N. Y., assistant engineer, maintenance of way, West Shore R. R.

Scheibell, William O., 1888, E. M., Upper Sandusky, manufacturer artificial stone.

Schroll, Otto, 1886, C. E., Wheeling, W. Va., civil engineer.

Schuller, Erwin Waldemar, 1892, B. A., M. D., 1894, Columbus, physician.

Schwier, Minona, 1897, B. A., Columbus.

Scott, Anna Neill, 1886, B. A., 1274 Summit street, Columbus.

Scott, Bertha, 1890, B. Ph., Indianola Place, Columbus.

Scott, Herbert, 1893, B. Sc., pastor M. E. Church, Alexandria.

Scott, Charles Felton, 1885, B. A., Pittsburg, Pa., electrician Westinghouse E. & M. Co.

Scott, Daisy Medill, 1887, B. A., Columbus, teacher in High School.

Scott, Emma, 1888, B. Sc., Brindaban, India Missionary.

Scott, Ernest, 1897, B. Sc., (Agr.), Columbus, student, Ohio Medical University.

Scott, Mary Odella, 1885, B. A., Columbus, teacher in High School.

Scott, May Mermod, 1887, B. A., 1274 Summit street, Columbus.

Scott, Mary Bole, 1896, B. A., Columbus, teacher.

Sears, Walter James, 1894, B. Ph., Chillicothe.

Sedgwick, Edward Crayton, 1895, M. E., in E. E., Zanesville.

Selby, Augustine D., 1893, B. Sc., Wooster, botanist and chemist Ohio Experiment Station.

Sellings, Albert Eugene, 1896, B. Ph., student Bellevue Medical College, New York.

Serva, Adam A., 1893, M. E., in E. E., New York City, with General Electric Co.

Shark, Robert J., 1897, LL. B., Hamilton.

Sharp, Charles C., 1888, C. E., Corning, superintendent mining department, Sun-day Creek Coal Co.

Sharp, David Barton, 1893, LL. B., Columbus.

Shellabarger, Marley Rolin, 1897, B. Sc., (Agr.) Garland.

*Shepard, Frank Reed, 1893, B. A., died August, 1893.

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